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ABSTRACT

The document reviews the career education concept briefly, presents placement services in their historical context, and relates both to the career development theories of Ginzberg, Super, Holland, and Roe. It describes the placement model, providing an examination of the model components, the program's relationship to other Comprehensive Career Education Model (CCEM) components, as well as formative and summative evaluation components. Four model components are treated in detail: school district action on the placement model, assessment of student characteristics, assessment of community characteristics, and defining the character of the local placement center. The section on support systems in the placement model focuses on the delivery system, interface with district information system, technology, and local placement programs. Research suggestions conclude the document. Appended materials include flow charts, the student assessment questionnaire, administrative instructions, an employer need survey form, local occupational data (Mesa, Arizona), an interim report on occupational outlook for Colorado, 1970-75, cover letters, program descriptions, placement forms and data, and directions for the use of the manual retrieval system. (MW)

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This document reviews the career education concept briefly, presents placement services in their historical context, and relates both to career-development theories. It describes what a placement program might be expected to be, and the role of many other factors which would make it successful. Finally, it presents a proposed placement model and details the many ramifications, including suggestions for local implementation.

The conceptualization would not have been what it is without the dedication and contributions of Fred J. Dyer, Project Coordinator of Guidance, Placement, and Community Relations in Jefferson County; Galen Lahman, CVTE/CCEM Support Systems; and Walter W. Adams, until recently Unit Leader of Guidance, Placement, and Support Systems at CVTE/CCEM.

Final editing at CVTE/CCEM was by John Odgers, Independent Consultant, and David Mangum of Jefferson County, with the work being coordinated by Hartley B. Campbell, R&D Specialist at CCEM.

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INTRODUCTION

Career Education Concept

The basic purpose of Career Education is to add a new dimension to the present school curriculum and related components by offering a wide range of student experiences related to career development. The concept of Career Education is designed to provide each student with a solid foundation of intellectual and occupational skills and a series of experiences for progressive career-relevant choice-making.

Although a common definition of Career Education has not been adopted, a few basic principles have been agreed upon. These basic principles view Career Education as:

1. A comprehensive educational program designed around careers.
2. Beginning in kindergarten and continuing throughout an individual's adult life.
3. Not merely a substitute for traditional "Vocational Education" or "General Education" or "College Preparatory Education" but a blending of all three into one unified effort.
4. Offering students exposure to a much wider range of occupational choices than are now available.
5. Infused into the existing curriculum and/or the addition of new curriculum or guidance units to achieve the stated objectives.
6. Including a greatly expanded use of community resources.

7. Uniting students, parents, schools, community and employers in a cooperative educational venture.
8. Including experiences representing the entire world of work.
9. Including continuous involvement with individuals in their career development from initial awareness through exploration, goal setting, preparation for placement, placement, follow-through and additional education.

Comprehensive Career Education Model (CCEM)

The National Institute for Education is currently funding four model Career Education programs. These programs include: (1) Model I, The School-Based Model; (2) Model II, The Employer-Based Model; (3) Model III, The Home-Based Model; and (4) Model IV, The Institutional-Based Model.

The Model I Program is commonly referred to as The Comprehensive Career Education Model (CCEM). It was initially funded in the Spring of 1971 by the United States Office of Education and since September of 1972 by the National Institute for Education.

The primary contractor for Model I is The Center for Vocational and Technical Education (CVTE) at The Ohio State University. CVTE provides the coordination for management and program development for the model. In addition to CVTE, the model includes a consortium of six public school Local Educational Agencies (LEA).

The public school LEA's include:

Atlanta, Georgia

Hackensack, New Jersey

Jefferson County, Colorado

Los Angeles, California

Mesa, Arizona

Pontiac, Michigan

Contract -- Sub-Contract

The primary contractor for the Comprehensive Career Education Model, CVTE, has entered into many sub-contracts with the six Local Educational Agencies of the Model I Consortium. The majority of the sub-contracts are for Curriculum Development. In addition to the major curriculum effort two significant sub-contracts exist between CVTE and two LEA's.

One is a sub-contract between CVTE and the Los Angeles Public Schools for the development of a conceptual model in guidance.

The second is the Placement sub-contract. In February, 1972, preliminary discussion was initiated between CVTE and the Jefferson County Public Schools to develop a placement model. On April 26, 1972, a sub-contract was signed between CVTE and the Jefferson County Public Schools to conceptualize a Comprehensive K-12 Placement Model. This model was to include components for Job Placement, Educational Placement, and Placement for Special Purposes.

The sub-contract provided Jefferson County with the funds to employ two professional and one clerical staff member to work on the conceptualization.

In addition, the United States Department of Labor funded the full salary of a representative from the Youth Opportunity Center of the Colorado State Employment Service.

The sub-contract was renewed in October, 1972, and currently calls for completion of the conceptualization phase of the program by August 31, 1973.

Importance of Placement in Career Education

The placement goal of the Comprehensive Career Education Model is 100 percent career-relevant placement for students exiting from the program by either graduation or prior to graduation. If this goal is to be achieved, a Comprehensive Placement Program must be developed which involves innovative approaches to accomplish all aspects of student placement.

The initial charge of the placement program in Career Education is to provide the means of assisting exiting students to secure employment and/or additional education. This assistance must be available for all exiting students. The curriculum and guidance activities in Career Education provide the student with the necessary skills to make it possible for him to obtain relevant placement. This includes not only job and/or educational placement, but must also consider placement of students who have need for special services such as vocational rehabilitation, welfare, mental health, and any other counseling service or specialized assistance that is not available within the public school system.

Placement, to be effective, must not only deal with the student as he leaves the school, but must provide a means of monitoring his progress throughout his educational experience and of providing him with the resources to make key decisions at various times during his Career Education Program. The delivery of experiences to assist a comprehensive placement program will be the responsibility of the curriculum and guidance activities.

Statement of Problem

For 100 percent of the students to achieve the Career Education goal of relevant placement either in an occupation and/or in additional education implies the need for a placement program.

The primary problem is the lack of a prototype comprehensive public school placement model for Career Education serving the needs of all students. This is especially seen in the lack of a job placement program that has been commonly adopted by public school systems.

The second problem is the philosophical issue regarding the responsibility of the public schools to provide a placement service for students. Opinions vary on the part of authorities concerning whether the operation of a placement program is a responsibility which the public schools should assume. Proponents indicate that a placement program must be provided if the school program is to be effective. They state that students need and deserve help in making and implementing decisions about their future and that the school is the only agency that can provide this assistance. An opposing position is advanced by individuals who state that the responsibility for placement is that of other public agencies such as the State Employment Service. Their argument is supported by the position that for a school system to provide a placement program is to mollycoddle, spoon feed and to supply students with jobs.

In addition to the lack of a Comprehensive Placement Program and the frequently conflicting philosophical issues inherent in public school systems, there are five related issues that deserve mention.

First is the need to provide a link between the school and the next experience of the student. A Comprehensive Placement Program can provide the bridge between the school and the community for the student.

Second, historically, placement programs have not been conceptualized utilizing a developmental or career choice theory as a base. This suggests the need for the conceptualization of a placement model based upon a sound career development or occupational-choice theory(s).

Third, it is hard to find any national authorities with the comprehensive concept of placement called for by Career Education. Many people have expertise in job placement or educational placement or in specified aspects of these components; however, there is not an established authority who has conceptualized a Comprehensive Placement Model for Career Education.

Fourth, although there are many examples of placement programs funded by various agencies throughout the country, most of these programs have been built upon a limited job placement concept.

Finally, the relationship between guidance and placement is cloudy. Generally speaking, placement is considered as a part of the guidance program.

However, a clear delineation must be made to show which activities within the total guidance program are the specific responsibility of the placement component.

Nature of Conceptualization

The purpose of conceptualization is to develop a placement model that can be tested, modified and retested as often as necessary until a valid model is established. The validation of the model will demonstrate the need for a Comprehensive Placement Program. The validation process will be concerned with field testing the initial conceptual model in situations that will allow for adequate feedback to bridge the gap between a theoretical concept of a placement model and the reality of developing and operating a placement program in the school setting.

The conceptualization of a model does not imply a product that is devoid of problems. There are certain limitations inherent in the conceptual model. First, the model cannot be considered as a stand-alone product that is transportable to any school system in the United States. The model that is currently conceived relies heavily upon curriculum and guidance activities to assure its effectiveness. These activities need to be built into the model before it can stand alone. Second, the model is not all things to all people. Although it addresses the needs of diverse populations and different settings, it cannot anticipate all the variables related to placement that can take place in school districts throughout the United States. As a result, the chapter dealing with school district action on the placement model addresses the problem of modifying the program to fit the needs of the local school district. Finally, the model does not include information about staffing requirements, financial needs, and all of the resources and facilities needed to assure for success in each school district. The framework of the model must be reviewed and evaluated by each district and translated in light of its own financial, personnel, and facility needs.

The validation of the model will include the development of guidelines and procedures to make it adaptable and transportable to any school system in the United States regardless of size, location, student characteristics and unique community characteristics. Validation will assist in answering the question of "Who can use it?" If the field test, refinement and additional field testing indicates that the model cannot deliver the services necessary for all school districts, it should be redesigned. The concept of transportability implies the development of a model with basic procedures, characteristics and dimensions that will possess the necessary flexibility to permit its adoption by any school system.

The process of validation of the model and the identification of problems related to its transportability to any school system in the United States will generate a series of research questions. The model must be flexible enough that it can be modified as new and better procedures and ideas are generated by research. This will allow for a better product.

REVIEW OF THE LITERATURE

History of Early and Contemporary Placement Efforts

Early Evidence of Placement

The role of placement has deep roots in the history of man. Brewer (1942,1) reports that during the Middle Ages, guilds assisted workmen who were traveling about in search employment by posting lists of local vacancies in hostels frequented by journeymen. The guilds of medieval times were concerned with a type of placement; the selection for apprenticeships. Fee charging registry offices for household workers were reported to have been established as early as 1421 in Nuremberg and other German cities. In France, during the seventeenth and eighteenth centuries, trade unions gradually assumed the responsibility of finding employment for their members. However, such movements were often resisted by the guilds. (Brewer,2)

Nineteenth Century Placement Efforts

The first free employment offices made their appearance in Germany in 1840 and in France in 1848. The earliest employment bureaus in the United States, although they were fee-charging, date from 1820. No doubt the formation of these early employment offices was a result of the needs of the industrial revolution that was sweeping Europe and America. (Brewer,3)

In the United States, the numerous abuses caused by the industrial revolution triggered the expansion of the free public employment bureau concept during the middle years of the nineteenth century. By 1834, the first municipal employment office was established by the Corporation of the City of New York. It provided a place to be designated in every market where those who wanted work could meet those who wanted workers. At first, these bureaus were poorly staffed and financed since they were often associated with relief programs. (Brewer,4)

The problems caused by the industrial revolution and the increasing numbers of immigrants further affected the development of placement activities. Up to this time, in spite of the efforts to provide free placement through employment bureaus, most placement activities were handled by private enterprise. All too often, workers were at the mercy of corrupt practices, misrepresentation, and scheming between agency and employer. Such abuses brought about the emergence of philanthropic organizations that sought to protect the poor from dishonest and questionable practices of private agencies. During the second half of the nineteenth century, the United Charities of Chicago, and B'nai B'rith, the German Society, the Swedish National Association, the Boston Young Woman's Christian Association and numerous other charitable organizations made their appearance. (Brewer,5)

Toward the turn of the century, increased governmental activities involving placement took place. The United States Civil Service Commission was established in 1883. State agencies started in 1890 with the State of Ohio leading the way, followed by Iowa in 1892, New York in 1896, Illinois and Missouri in 1899, Massachusetts in 1906. By 1908, sixteen states had offices. During this time, municipal and state efforts were augmented by the establishment of the United States Employment Service in 1907. The purpose of the United States Employment Service was to promote the beneficial placement of alien workers throughout the states and territories. (Brewer,6)

It should be remembered that guidance was synonymous with placement. This identification dates back to the first part of the century in a cultural context which was considerably different in terms of occupational structure than it is today. The extensive national, state, local, and private agencies had not developed into the large institutions that they are today and the need for placement services as a part of the school guidance activity was evident. (McDaniel et.al.,7)

Early Twentieth Century Placement Efforts

Early in the Twentieth Century, the schools were beginning to develop significant placement activities. In 1904, Eli W. Weaver, principal of Boy's High School in Brooklyn, New York developed a placement program providing high school boys with part-time work paralleled with schooling and summer work. During this same period, Frank Parsons' Vocations Bureau in Boston, while principally dealing with vocational guidance, was indirectly involved in placement activities. This activity was indirect in the sense that help was being provided for eventual placement. Parson's set-up helped the applicants use true methods of self investigation, make wise vocational choice, and adapt the best means for developing full efficiency in their chosen fields. The actual task of finding employment was to be left to the regular agencies. (Brewer,8)

In a short time, all concerned seemed to arrive at the conclusion that the activities of the Vocational Information Department and Placement Bureau should be taken over fully by the schools. Thus, a director could state in the 1914 Report of the Boston Placement Bureau:

> If during the next six months the Placement Bureau can perfect its machinery, it should be able to demonstrate to the Boston School Committee not only the possibility but the desirability of incorporating the Bureau under the public school system. With "placement" centralized under one head together with the Departments of Vocational Guidance and Evening and Continuation Schools, Boston will have a comprehensive scheme of vocational education which will be second to none in the nation. (Brewer,9)

The involvement of the schools in placement of students is not peculiar to the Twentieth Century. The early monastic schools and the medieval universities were active in placement. Colleges and universities became active in placement prior to the turn of this century. By 1910, placement bureaus for college graduates were becoming common. In 1918, surveys like the one conducted by W. Carson Ryan Jr. were able to gather data regarding the number of schools that maintained departments or bureaus designed to assist young people in securing employment. (Brewer,10)

During this same year, Isaac O. Winslow described the need for a placement program in Providence, Rhode Island schools in the following words:

> At present there is a wide gulf between education and the practical affairs of life. Young people wander blindly about for several years after they leave school before they find out what they want to do. The result is confusion, discouragement, and waste. I believe that children should learn about occupational opportunities and should discover their own abilities and interests while in school. The transition between education and employment should be a very gradual one. Consequently, guidance should be an integral part of the curriculum, program and organization of the entire school system. It should begin with the study of individual differences and adjustments in the early grades, and should follow pupils after they leave school during the time they are blazing trails into employment and adult life. (Allen,11)

Borow (12) writes that the purposes of the placement function within guidance, as stated by Superintendent Winslow in 1918, has proved to be prophetic in view of the developments that were to come. Yet, in many ways, the services and programs of the period until the 1930's were largely continuations of the basic pattern formed during the earlier periods. Emphasis on the placement function continued to be strong although there was divided opinion as to how completely the schools should accept the responsibility for this service.

The argument for school-based placement was further advanced in 1917 by passage of the Smith-Hughes Vocational Educational Act. The act provided impetus to trade-training which was intimately related to placement and follow-up.

Another support for school-based placement appeared in the publication of a revision of principles adopted by the National Vocational Guidance Association in 1924:

> The revised Principles, (sic 1921 statement) unlike the first statement, limited guidance activities to vocational and educational; made more specific the needs for vocational guidance by stressing the complexity of the occupational world and the high percentage of students who did not complete high school or even grammar school; emphasized the necessity for guidance of adults and the handicapped; pointed out the importance of try-out job experiences, mentioned the need for cooperation of all the teaching staff and stressed the responsibility of the school for follow-up, placement, and job adjustment activities after the child leaves school. (Norris,13)

During these early years, significant placement efforts were taking place in such places as Boston and Providence. At that time, Meyer Bloomfield and the Boston Department of Vocational Guidance and Placement were stressing counselor awareness of the placement market by having each school counselor spend every other day in the placement office. Meanwhile Richard B. Allen's program in Providence, while still being somewhat involved in placement efforts, was beginning to swing toward educational guidance. It was this same Richard Allen who would spearhead the conquest of the National Vocational and Guidance Association by educators thus marking the trend toward educational counseling.

Placement Activities During the Great Depression and World War II

The year 1929 marked the beginning of the Great Depression. The Depression brought forth a failing economy, scarcity of jobs, and massive migrations of people across the country. It also brought forth "New Deal" governmental programs that resulted in a significant shift in responsibility for the placement function. This government involvement was marked by the passage of the Wagner-Peyser Act of 1933. This Act created the United States Employment Service, a bureau of the Department of Labor, replacing the federal organization of the same name. This act promoted and developed a National System of Employment Offices for Men, Women, and Juniors. Bell (14) observed that while the school's responsibility for providing placement services was usually optional and essentially moral, the Public Employment Office responsibility became universal and legal. By 1935, twenty-five states were affiliated. In 1936, W. Frank Persons, director of the service, discussing the placement of school age youth stated:

> Whether the school or the public employment offices are to assume the major responsibility for the placement of young people must be determined by practical considerations in each community. In either case, success depends upon the fullest cooperation between these agencies. The schools must give the employment service the benefit of

> their previous experience with the applicants, and the employment service must help the schools in matters of technique and organization. (Brewer,15)

Matthewson (16) maintains that in spite of the compromising words of Persons, placement grew too rapidly, and became too specialized to the extent that it became a bone of contention between the schools and the public employment service. Good arguments were offered by each faction favoring its own hegemony over placement. The result was that battle lines were drawn between those favoring the employment services' role in placement and those favoring the schools' role in placement. It is the opinion of Sinick (17) that the establishment of the public employment services as a repository for the responsibility for placement was decisive in determining the outcome of this conflict. According to Brewer the surrender came in 1943 when the American Association of School Administrators' stated that while they recognized placement as a part of the continuing responsibility of the schools to youth; however, due to the growing complexities of manpower needs and occupational analysis, public placement services should increasingly be assumed by government agencies.

The remaining years of the Depression provided a number of government-sponsored programs involving placement activities. In 1935, the National Youth Administration (NYA) was established with the stated objective of encouraging job training, counseling and placement services, and the development and extension of constructive educational and job qualifying activities for juniors and seniors.

Bell (18) toward the close of the Great Depression, observed that the American Youth Commission in a joint project with the Federal Employment Service Division encouraged mutually profitable relationship between the schools and the public employment offices. The more farsighted in the employment offices and the schools were beginning to realize that they shared a common goal. Both agencies were conscious of their responsibility for the preparation of youth entering the labor market.

The involvement of the United States in World War II in 1941 had a significant effect on placement activities. Due to manpower shortages, it was no longer necessary to provide sophisticated job placement programs. Froelich (19) writes, most placement activities were relegated to the placement of manpower in the military and war industries. Due to the accompanying high level of employment caused by the conflict, the schools became the principal source of the new manpower additions to the labor market. Consequently, it became a common practice for employers to call on the schools for manpower. Schools which had previously received only occasional calls, now found themselves besieged by requests. These increased demands compelled the schools to organize school placement services. Brewer (20) states at this time, that placement has continuously been carried on with little attention to the need of guidance; and placement personnel, while often intelligent and conscientious, never developed imagination enough to think out other procedures comprised in the series of services called guidance.

Placement Efforts During the Post War Years

Immediately after the war, Veterans' benefits contributed to a large influx of veterans into training schools, colleges, and universities. A resulting rapid expansion of educational facilities took place across the nation. Then, as this mass of student population moved out of the education and training facilities, college enrollment declined. The result necessitated lowered entrance requirements in order to maintain these enrollments. This chain of events had a decisive effect on the role of guidance and placement activities during the next decade.

Sinick (21) summarizes Olshansky's lament during 1953 that expresses the concern regarding the overemphasis on simply helping the student make a job or educational choice while eliminating the preparation and placement phases within the guidance process. Apparently, Guidance was relegated to helping students make choices while giving cursory treatment to the rest of the guidance functions.

Dunton (22) states that during these years, placement consisted of a narrow and specific set of tasks. Placement simply attested that a student has completed a prescribed course of study which had distinctive vocational applications and had been placed in a suitable job. This concept of placement focused almost exclusively upon students in high school terminal curriculum or in one of the vocational curriculums.

The decade following World War II experienced even more significant events that had a profound influence on placement activities. One such event was the growing influence of Carl Rogers (1942,1951) that seriously challenged the trait-factor approach used in guidance and placement. The second was the response to Sputnik in the passage of the National Defense Education Act of 1958 whose purpose was to identify talented students by means of testing, and, through guidance and counseling provide placement in colleges, universities. technical training. However, the National Defense Education Act was indirectly instrumental in bringing about a more personalized guidance approach in the schools. Apparently the influence of psychologically oriented college and university counseling and guidance departments on students influenced the direction of high school counseling and guidance personnel. Educational placement once again predominated in counseling and guidance services.

The post war years produced monumental contributions by Eli Ginzberg, Anne Roe, Donald Super, John Holland, and others in the area of career developmental and career choice theories. For the first time, consideration was being given to the other forces that play a critical role in the preparation of the individual for life's activities. These events provided and continue to provide many ramifications for guidance and placement.

During the 1960's the placement activities of both governmental agencies and schools received a massive boost. In reaction to the Civil Rights movements and their attendant distrubances, the "New Frontier" and "Great Society" efforts of two successive administrations provided a great variety of programs established to serve the needs of the economically, socially, and educationally disadvantaged. The Manpower Development and Training Act of 1962 and its amendments of 1965 and 1968 provided programs such as Operation Retrieval; Jobs Now; The Mayor's Youth Employment Project; National Institute of Labor Education YEP Apprenticeship Program, etc. More localized programs were also developed. Examples of local programs include: The Community Action Program of Washington D.C.; Youth Opportunity Board of Los Angeles; Houston Job Placement and Group Guidance Program; North Carolina School Dropout Project; Industrial Manpower Center, San Francisco; University of Southern Florida Learning Center for Personal Employment; Flanner House Project, Indianapolis; Vocational Advisory Service, New York City; Community Progress, New Haven; Project TRY, Brooklyn, New York; Project Challenge, Washington D.C.; Washington State Area Manpower Plan; and Chicago Youth Development Project. The Economic Opportunity Act of 1964 under Titles I and V produced the Job Corps, the Work Training Program, the Work Study Programs and the Work Experience Program.

Present Placement Activities

In the past few years, successful in-school placement programs, such as the Kalamazoo's Employment Bound Youth Program and the Akron-Summit County

Public Schools Job Placement Department have given testimony to the effectiveness of the in-school and exiting student placement approaches.

According to Herr and Cramer (23) vocational guidance, counseling and placement have been considered mutually exclusive events. They also point out that placement for students entering the labor market has seldom been seen as a major responsibility of the school. In practice, vocational teachers, business teachers, and counselors in some schools have been engaged in mutually exclusive placement of students. This situation serves as a continuing paradox when compared to the intensity with which schools and school counselors pursue the placement of students in colleges and universities.

In conclusion, it can be said that throughout the history of placement, many sources; economic, social and political, have continued to play an important role in determining the parameters of this very important function. Hopefully, in the years ahead, the placement function will be organized to provide a vital and comprehensive role in assisting people to achieve a truly satisfying life experience.

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[11] R. D. Allen, *Organization and Supervision of Guidance in Public Education* (New York: Inor Publishing Company, 1934), p. V.

[12] Henry Borow, *Man in a World of Work* (Boston: Houghton Mifflin Company, 1964), p. 7-8.

[13] Willa Norris, "The History and Development of the National Vocational Guidance Association," (unpublished doctor's dissertation, George Washington University, 1954), p. 75.

[14] Howard Bell, *Matching Youth and Jobs* (Washington, D.C.: American Counsel on Education, 1940), pp. 34-35.

[15] Brewer, *op. cit*., p. 312.

[16] Robert Henry Matthewson, *Guidance Policy and Practice* (New York: Harper Brothers, 1955), p. 267.

[17] Daniel Sinick, "Placement's Place in Guidance and Counseling," *Personnel and Guidance Journal*, (1955), pp. 36-40.

[18] Bell, *op. cit*., p. 35.

[19] Clifford P. Froelich, *Guidance Services in Smaller Schools* (New York: McGraw-Hill Book Company, 1950), p. 229.

[20] Brewer, *op. cit*., pp. 12-13.

[21] Sinick, *op. cit*., p. 36.

[22] W. K. Dunton, "Education for Employment," *National Association of Secondary School Principal's Bulletin*, No. 49 (1965), pp. 65-70.

[23] Edwin L. Herr and Stanley H. Cramer, *Vocational Guidance and Career Development in the Schools: Toward a Systems Approach* (New York: Houghton Mifflin Publishing Company, 1972), pp. 214-16.

Relationship of Placement to Career Development Theories

The Need for a Theory Base

According to Herr (1972,1) much of career education has its genesis in career development theories. If this is true, the Comprehensive Career Education Model must use a theoretical framework as the foundation to build its curriculum, guidance, and placement components.

Any theory of career development, whether it be of a developmental, personality, or decision perspective, identifies major transition points that occur during the process of career preparation. These major transition points, as they relate to career development or choice, are of special importance to the function of the Placement component of CCEM.

The function of the Placement component is to provide the student assistance in selecting the most appropriate alternatives as he moves from one decision point to another along his career development path. To accomplish this, it is necessary that Model I adopt a theoretical framework that is capable of supplying a rationale for the Placement component of the Model.

The Formation of a Theory for the Comprehensive Career Education Model

During the past twenty years, significant contributions have been made in the area of career development theories. The major theories of Ginzberg, Super, Holland, and Roe have provided an explanation for the processes that take place in one's preparation for life's activities. The development of the Comprehensive Career Education Model necessarily demands the formation of a theory of occupational choice that will validate instructional, guidance, and placement activities of the model, and provide research bases for the model.

The purpose of this section is to briefly review the existing major theories as a preliminary for the formation of a theory of occupational development especially suitable to the goals of the Comprehensive Career Education Model.

Ginzberg's Theory of Occupational Choice

Basic Elements

Ginzberg, Ginsburg, Axelrad and Herma's (1951,2) theory of occupational choice contains the following four elements:

(1) Occupational choice is a developmental process which typically takes place over a period of approximately ten years.

(2) The process is largely irreversible. Irreversible in that it involves investments of time, money, personality, and self-concept changes. Also, each decision during the developmental process is related to one's preceding experience, and in turn tends to influence the future.

(3) The process of occupational choice ends in a compromise between interests, capacities, values, and opportunities. This compromise involves the balancing of a series of subjective elements with opportunities and limitations of reality leading to the crystallization of an occupational choice. Ginzberg and his associates maintain that the individual attempts to choose a career in which he can make as much use as possible of his interests and capacities in a manner that will satisfy as many of his values and goals as possible. However, while seeking an appropriate choice, the individual must weigh available opportunities, the limitations of environment, and assess the extent to which these factors will contribute to or detract from the securing of a maximum degree of satisfaction in work and life.

(4) There are three periods or stages in the vocational development of individuals. These stages or periods are labeled as the fantasy stage, the tentative stage, and the realistic stage.

The fantasy stage, that takes place between approximately the ages of 5-11 years, is essentially dominated by choices which are based on the child's wish to be an adult. During this stage, the child believes there is no limit and he can become whatever he wants to be. Apparently, at this time he makes an arbitrary translation of his impulses and needs into an occupational choice while ignoring all reality factors. The child, at this stage of occupational development, simply is unable to assess his capacities or the opportunities and limitations of reality.

The tentative period that takes place between approximately the ages of 11-17 years, is characterized by the individual's recognition of the problem of deciding on a future occupation. The solution must be sought in terms of current satisfactions. During this period, the transition is almost exclusively in terms of subjective factors; namely interests, capacities, and values. Adolescents tend to consider their choices tentative because they sense that they have not effectively incorporated the reality factors into their considerations. Often, the process of vocational decision making starts with the question: "What would I like to do?", and is followed by the question: "What can I do with my special skills?"

The tentative stage is divided into four substages. The first of these substages is called the interest stage because tentative choices made at this time are based almost exclusively on interests and may be expressed by the question: "What would I like to do?" The next substage involves the process of considering one's capacities. "What can I do with my special skills?" The third substage is the value stage in which activities are perceived as having extrinsic, intrinsic, and concomitant values. The final substage involves a *transition* process in which the adolescent recognizes that an effective resolution requires the incorporation of reality considerations and that this will be possible only on the basis of additional experience.

Finally, the realistic stage, beginning approximately at 17 years of age and continuing into young adulthood, is a stage heavily weighted by reality considerations. At this time, the individual recognizes that he must work out a compromise involving his interests, capacities, values and the opportunities open to him. It is approximately at the age of seventeen that reality considerations, which were on the periphery of consciousness, move into a more central position. This shift toward reality considerations reflects the fact that the values which an individual hopes to realize through work are deeply embedded in the social and economic structures. Thus, the decision concerning an occupational choice is a compromise whereby an individual hopes to gain the maximum degree of satisfaction out of his working life by pursuing a career in which he can make as much use as possible of his interests and capacities in a situation which will satisfy his values and goals. In seeking an appropriate choice, he must weigh the actual opportunities and limitations and the extent to which they will contribute to or detract from maximum work satisfaction.

Ginzberg (1966,3) further developed his conceptualization of the realistic stage by adding substages. The first of these substages is the *exploration stage* during which tentative preferences are tried out and implemented. Choice is affected and changed by the realistic feedback from actual trial and error on the job. All of these evaluations are brought into the *crystallization stage* which is characterized by the emergence of career patterns based on the failures and the successes experienced in the exploration stage. The final stage is one of *specification*. In the specification stage, the individual chooses an occupational specialty. The process is now complete as a result of development over possibly a fifteen year period. Obviously, there are wide individual variations with regard to progress through these life stages.

Donald Super's Theory of Vocational Development

Donald Super (1953,4) developed a theory of vocational development under two major influences. The first was the influence of Carl Rogers (1942,1951) and the second was that of Charlotte Buehler (1933).

Roger's contribution centers around the observation that an individual's behavior, including his vocational behavior, is a reflection of his attempts to implement his self-concept through his life.

Charlotte Buehler, in her studies, suggested that life can be seen as consisting of distinctive life stages. She proposes a growth stage which starts at birth and continues until approximately the fourteenth year. This is followed by an exploratory stage between the ages of fifteen and twenty-five. The maintenance stage comes next, and covers the period up to about the age of sixty-five. Finally, there is the stage of decline that concludes the life stages.

Super's notion of career development is based on the framework of life stages, and he assumes that work tasks reflect the larger tasks of life. Essentially, Super holds that an individual struggles to implement his self-concept by choosing to enter that occupation or vocation he perceives as giving him the maximum chance for self-expression. Furthermore, the particular behaviors to which an individual engages in his attempt to implement his self-concept vocationally are a function of the particular life stage of development in which he finds himself. As he becomes more mature, his self-concept becomes more stable. However, the manner in which the self-concept is implemented vocationally is heavily dependent upon external conditions. The attempts to make vocational decisions, therefore, vary widely from adolescence to, for example, late middle age. Vocational behavior can only be effectively observed in the context of the changing demands of the life cycle in interaction with the attempts of the individual to implement his self-concept.

Super organizes his statement of comprehensive theory into a series of ten propositions: (1) People differ in their abilities, interests, and personalities. (2) They are each qualified, by virtue of these characteristics, for a number of occupations. (3) Each of these occupations requires a characteristic pattern of abilities, interests, and personality traits, with tolerances wide enough to allow both variety of occupations for each individual and variety of individuals in each occupation. (4) Vocational preferences, competencies, the situations in which people live and work, and their self-concepts, change with time and experience, making choice and adjustment a continuous process. (5) This process may be summed up in a series of life stages characterized as those of growth, exploration, establishment, maintenance, and decline. (6) The nature of the career pattern (i.e., the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socio-economic level, mental ability, and personality characteristics, and by the opportunities to which he is exposed. (7) Development through the life stages can be guided, partly by facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of the self-concept. (8) The process of vocational development is essentially that of developing and implementing a self-concept. This involves a compromise process in which the self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluations of the extent to which the results of role playing meet with the approval of superiors and fellows. (9) The process of a compromise between individual and social factors, between self-concept and reality, is one of role-playing, whether the role is played in fantasy, in the counseling interview, or in real life activities such as school classes, clubs, part-time work, and entry jobs. (10) Work and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values. This depends upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which growth and exploratory experiences have led him to consider both satisfying and appropriate.

Life Stages

Super postulates that there are five life stages that are differentiated in terms of differing attitudes and behavior. Furthermore, there are developmental tasks peculiar to each of these five life stages. Super and his associates (1963,5) have listed the attitudes and behaviors that are relevant to vocational development tasks at each of the five life stages.

Crystallization: This stage ranges approximately from age eleven through age eighteen and involves: (a) awareness of the need to crystallize, (b) use of resources, (c) awareness of factors to consider, (d) awareness of contingencies which may affect goals, (e) differentiation of interests and values, (f) awareness of present-future relationships, (g) formulation of a generalized preference (h) consistency of preference, (i) possession of information concerning the preferred occupation, (j) planning for the preferred occupation, and (k) wisdom of the vocational preference.

Specification: This stage extends approximately from age eighteen through age twenty and involves: (a) awareness of the need to specify, (b) use of resources in specification, (c) awareness of factors to consider, (d) awareness of contingencies which may affect goals, (e) specification of a vocational preference, (f) consistency of preference, (g) possession of information concerning the preferred occupation, (h) planning for the preferred occupation, (i) wisdom of the vocational preference and (j) confidence in a specific preference.

Implementation: This stage extends approximately from age twenty-one through age twenty-four and involves: (a) awareness of the need to implement preference, (b) planning to implement preference, (c) executing plans to qualify for entry, and (d) obtaining an entry job.

Stabilization: This stage extends approximately from age twenty-five through age thirty-five and involves: (a) awareness of the need to stabilize, (b) planning for stabilization, (c) becoming qualified for a stable, regular job or accepting the inevitability of instability, (d) obtaining a stable regular job or acting on resignation to instability.

Consolidation: This stage begins approximately at age thirty-five and involves: (a) awareness of the need to consolidate and advance, (b) possession of information as to how to consolidate, (c) planning for consolidation and advancement, and (d) executing consolidation and advancement plans.

Super (1957,6) was the first to use the terms vocational development and vocational maturity. These descriptors generally have replaced vocational choice and vocational adjustment in the psychological field. Budke (1971,7) points out that the diverse elements of a vocational development theory were organized by Super into a summary statement utilizing 11 propositions: (1) Vocational development is an on-going, continuous, and generally irreversible process. (2) Vocational development is an orderly, patterned process and thus predictable.

(3) Vocational Development is a dynamic process of compromise and synthesis. (4) Self-concepts begin to form prior to adolescence, become clearer in adolescence, and are translated into occupation terms in adolescence. (5) Reality factors play an increasingly important part in occupational choice with increasing age, from early adolescence to adulthood. (6) Identification with a parent or parent substitute is related to the development of adequate roles, their consistent and harmonious interrelationship, and their interpretation in terms of vocational plans and eventualities. (7) The direction and rate of the vertical movement of an individual from one occupational level to another is related to his intelligence, parental socio-economic level, status needs, values, interests, skills in interpersonal relationships, and the supply and demand conditions in the economy. (8) The occupational field which the individual enters is related to his interests and values, the identifications he makes with parental or substitute role models; the community resources he uses; the level and quality of his educational background; and the occupational structure, trends, and attitudes of his community. (9) Although each occupation requires a characteristic pattern of abilities, interests, and personality traits, the tolerances are wide enough to allow both variety of individuals in each occupation and diversity of occupations for each individual. (10) Work satisfactions depend upon the extent to which the individual can find adequate outlets in his job for his abilities, interests, values, and personality traits. (11) The degree of satisfaction the individual attains from his work is related to the degree to which he has been able to implement his self-concept in his work.

Career Patterns

Building upon his consideration of developmental concepts, Super, in developing his notion of career patterns, utilized the work of Miller and Form (1951,8) and Davidson and Anderson (1937,9). From the researchers, Super deduces that the behavior of individuals follows general patterns which can be recognized as regular and predictable after examination of the individual. According to Kinnane's (1970,10) summary of Super's theory, among the various career patterns is the stable pattern, exemplified by the career of medicine, which is entered into relatively early and permanently. There is also the conventional pattern which leads to a stable job after several other jobs have been explored. The unstable pattern is characterized by a series of trial jobs leading to temporary stability which is later disrupted. Finally, there is the multiple trial pattern in which the individual moves from one job to another without ever being stabilized in any one.

The career pattern concept is important in the present context because it demonstrates that the life cycle imposes different vocational tasks on people at different times of their lives. Accordingly, in order to fully understand the nature of the individual's role or the vocational life of the individual, the whole life cycle must be observed.

In summary, Super's theory points out that each person moves through various life stages, all of which demand vocational behaviors appropriate to the particular stage. Of all of these stages, it is the exploration stage that is of special significance to Career Education. It is at this stage that exposure to distinct career directions must take place in order that individuals can translate them into practical decisions of career choice.

Holland's Theory of Vocational Choice

Holland (1959,11; 1962,12; 1966,13) theorizes that career choice is an aspect of personality and represents an endeavor to implement personal styles in the world of work. Holland's novel notion is that individuals project the picture they have of themselves in occupational titles. He makes the assumption that at the time a person chooses his career, he is already a product of his heredity and environment. As a result of early and continuing influences of genetic potentialities and the interaction of the individual with his environment, there develops a hierarchy of habitual or preferred methods for dealing with social and environmental tasks. Consequently, Holland has devised a list of occupational types and his procedure involves the expression of preferences for or negative feelings with regard to this list of types. He then classifies people by their expressed personal styles.

According to Holland, most people can be categorized as belonging to one of six types; namely, Realistic, Intellectual, Social, Conventional, Enterprising, and Artistic. Holland feels that people view the world of work in terms of occupational stereotypes. He believes that this stereotype view is based on the reality of work experience and possesses a considerable degree of accuracy and usefulness. His main instrument is the following list of occupational titles reflecting a definitive number of work environments in American society.

Occupational Environments

(a) The Realistic or Motoric Environment:

Orientation towards this type of work environment involves aggressive behavior, preferences for activities involving skill, high level of motor coordination, physical strength, and masculinity. People possessing such orientations tend to prefer concrete rather than abstract problem-solving situations. Illustrative occupations are laborers, machine operators, pilots, farmers, truck drivers, and carpenters.

(b) The Intellectual Environment:

Orientation towards this type of environment involves analyzing and synthesizing rather than doing and persuading. Individuals with this orientation tend to be more asocial and tend to withdraw from close personal contact. Illustrative occupations are physicists, anthropoligists, chemists, mathematicians, and biologists.

(c) The Supportive or Social Environment:

Orientation towards this type of work environment involves the tendency of individuals to fulfill their basic needs for attention in helping others. They seek close interpersonal situations and cultivate interpersonal skills. They tend to avoid the analytic approach to problems and tasks that involve physical skills. Illustrative occupations are social workers, teachers, interviewers, vocational counselors, and therapists.

(d) The Conventional or Conforming Environment:

Orientation towards this type of work environment involves the kind of individual who is marked by considerable concern for self-control, conforming to rules and regulations, and by identifying with power and status. Illustrative occupations are bank tellers, secretaries, bookkeepers, and file clerks.

(e) The Persuasive or Enterprising Environment:

Orientation towards this type of work environment involves the kind of individual who is characterized by high verbal skills, which are used for dominating and manipulating people. Illustrative occupations are salesmen, politicians, managers, promoters, and business executives.

(f) The Aesthetic or Artistic Environment:

Orientation towards this type of work environment involves the kind of person who exhibits strong needs for artistic expression, in that he seeks tasks which demand physical skills and interpersonal interaction where structure is not of importance. He tends to readily express his emotions and is relatively unconcerned with self control.

Holland maintains that the developmental hierarchy is the product of the person's adjustment to one of the six occupational environments. The six major types of adjustment resulting from the developmental hierarchy constitute the major patterns of life style in the relationship of the individual to the world of work.

Essentially, this theory assumes that at the time of vocational choice the person is the product of the interaction of his particular heredity with a variety of cultural and personal forces including peers, parents, and significant adults, his social class, culture, and environment. As a result of such an experience, the individual develops a hierarchy of habitual or preferred methods for dealing with environmental tasks. In a sense, the individual making a vocational choice "searches" for situations which satisfy his hierarchy or adjustive orientations.

Holland states that people search for environments and vocations that will permit them to exercise skills and abilities, to express attitudes and values, to assume agreeable problems and roles, and to avoid disagreeable ones. Consequently, Realistic types seek Realistic environments, Intellectual types seek Intellectual environments, etc.

Roth et. al,, (1970,14) in discussing Holland's theory, point out that during the process of growing up, a child learns through his parents, social environment, schools, and community what he does well, what he does poorly, and what he likes to do. At the same time, he acquires some useful, though not always accurate vocational images. When he graduates from school and enters his first job, his choice is often a resolution of a complex set of forces that include his hierarchy of choices, the range of job opportunities available to him, the influence of parents and friends, and various chance factors.

In summary, a person's behavior can be explained by the interaction of his personality pattern and his environment.

Holland, in relating personal and occupational knowledge in his theory, states that self-knowledge operates to increase or decrease the accuracy of a person's choice. He defines self-knowledge as the person's ability to make discriminations among potential environments in terms of his own attributes. Occupational knowledge is defined by Holland as a person's knowledge of occupational classes that sets loose limits on the range of choice. Differentiation of the major classes and the specific occupations within classes also affects the accuracy with which the person can make adequate and stable choices. For example, if a person thinks only of a laboring job distinguished from a clerical job, he is forced to make a rather crude choice. The person who can successfully differentiate the various kinds of clerical and laboring jobs is more apt to make an adequate choice. Since it is assumed that the person learns about occupational environments, it is assumed then, that a selective perception of environments takes place which results in the individual learning more about some environments than about others.

Herr (1966,15) in summarizing Holland's theory states that his theory is built upon the belief that individual behavior is a function of the interaction between the individual's personality and environment, and that choice behavior is an expression of personality. If this is true, then people will seek those settings, occupations or pursuits of interest which permit the expression of particular personality styles. In our culture, personality types and cultures can be discussed in similar ways, classifying them into Realistic, Intellectual, Social, Conventional, Enterprising, and Artistic. Consequently, interest inventories are personality inventories, and vocational stereotypes held by individuals have important implications in occupational choice.

Anne Roe's Personality Theory of Career Development

Anne Roe (1951,17; 1957,18; 1964,19) has made a major contribution by her personality oriented theory of career choice. Kinnane (1970,2) indicates that Roe makes two major conclusions regarding career choice. The first is that major personality differences exist between certain occupational groups. The second is that these differences are largely the consequence of child-rearing practices. According to her theory, there are three major influences affecting career development; namely, early childhood experience, needs and genetic influences. The first is that early childhood experiences are apt to influence vocational choices. The second influence is based on Maslow's (1954,20) concept that within each individual there is a hierarchy of needs that are reflected in his or her vocational decision making. The third is that dealing with genetic influences on the development of need hierarchies and of career choices.

Roe maintains that the individual's genetic background underlies his abilities and interests as these are related to career choice. As the individual expends psychic energy, this in turn influences the development of his ability.

Each individual develops a need hierarchy based on individual experiences of frustration and satisfaction, as well as on genetic factors. Roe built her theory on Maslow's (1954) hierarchy of needs that incorporates the higher order needs of love, affection, knowledge and self-actualization and the lower order needs of hunger, thirst, safety, etc. According to her, these lower needs must be satisfied if higher order needs are to become significant in the person's behavior. Consequently, individual motivation is the result of the individual's need structure. Thus, motivational differences are, in fact, the result of different kinds of childhood experiences. The essential influencing conditions are the strength of the individual need, the amount of delay between the arousal of the need and its satisfaction, and the value the satisfaction of the need holds for the individual at a particular point in time. Child-rearing practices, therefore, are related to both kinds of needs satisfied and the subsequent delay involved in their gratification.

In 1957, Roe (21) classified occupations according to her theory. In this classification, people in service occupations are primarily oriented towards persons and tend to come from homes characterized by a loving and over-protecting environment. On the other hand, scientists tend not to be oriented towards people, and their home atmosphere tends to be characterized by coldness involving rejection and possible avoidance of the child. At the same time, the development of the individual's needs influences his vocational behavior either in moving towards others or away from others. Roe clearly specifies the factors in the early home environment and the influences which relate to the development of needs. She points out that motivation is largely the result of the intensity of needs and that this intensity is a function of the degree of deprivation of the individual combined with his genetic structure. The final level of complexity and responsibility in occupational endeavors results from intelligence and the ways in which the individual manipulates the environment.

According to Roth, et. al,, (22) Anne Roe presents, in depth, some general hypotheses regarding personality variables as they are expressed in behavior and as they are associated with intelligence, interests, and special abilities. She points out that some of the individual variation in all of these seem to be due to inheritance; to differences in genetic endowment. The following five hypotheses are presented in detail.

Roe's hypotheses include: (a) the hereditary basis for intelligence, special abilities, interests, attitudes, and other personality variables seem usually to be nonspecific; (b) the pattern of development of special abilities is primarily determined by the directions in which psychic energy comes to be expended involuntarily; (c) these directions are determined in the first place by the patterning of early satisfactions and frustrations.

As mentioned earlier, Roe uses Maslow's hierarchical classification of needs in presenting her theory. Maslow's theory states that higher order needs cannot appear until lower order needs are at least relatively well satisfied. Maslow's Hierarchy of Needs is as follows: (1) physiological needs; (2) safety needs; (3) need for belongingness and love; (4) need for importance, respect, self-esteem, independence; (5) need for information; (6) need for understanding; (7) need for beauty; (8) need for self-actualization. Roe notes that the effect of needs in vocational development will depend, among other things, upon the strength of basic need in the given individual, the length of time elapsing between arousal and satisfaction, and the values ascribed to the satisfaction of his need in the immediate environment.

In summary, Anne Roe's Personality Theory of Career Development provides insight into the effect of events in early life and the need motivation in the ultimate determination of later career choice.

Existential View of Career Development

Simons (1966,23) suggests the use of the framework of existentialism for a theory of vocational development. This theory has been built upon Sartre's (1956) endeavor to explain all human experience within the framework of his life theory. According to Sartre, at the time an individual chooses a career, he ultimately decides "to become" or to frustrate his basic tendencies toward fulfillment. The existentialist is, therefore, suggesting that one examine the career choice to explain the mystery of the life process.

According to Simons, there are three stages in the life process. There is the "I-It stage", the "Thou stage" and, finally, the "I-Thou stage". The first, the "I-It stage", is a childlike stage which often lasts far into adulthood. This period will last as long as the individual looks upon others as objects to be manipulated. The second, the "Thou stage", occurs when one becomes aware of others not as objects but as part of humanity. Finally, the "I-Thou stage". is achieved once the person chooses to objectify himself by leaving himself vulnerable to the reality of others. This is achieved when one sees persons as they really are and not as he would like them to be. According to Simons, the achievement of the "I-Thou stage" is significant because, by objectification, one leaves himself vulnerable to the reality of others. By doing this, he has prepared himself to make that most difficult and courageous act of choosing a vocation.

In his paper, Simons evaluates the theories of Holland (1959), Roe (1958), Super (1957), and Tiedeman and O'Hara (1962), from the point of view of the existential theory of vocational development in order to establish a harmony of theories.

Simons feels that Holland's theory of vocational choice limits characteristic patterns of personal development to six types. Holland's theory clashes with the theory offered by the existentialists since it fails to take into consideration the fact that an individual with an intellectual bent might find the consequences of objectification, such as writing a scholarly piece, too painful for him to pursue. This same person could end up doing the work of a bank teller, not because he is conventionally oriented, but because he found objectification too difficult in the intellectual field. Simons feels that Holland's theory would be readily compatible with that of the existentialist by limiting the patterns to Intellectual, Social, Enterprising, and Artistic. A blending of the patterns described as Realistic and Conventional into the others would effect this. In each of the remaining patterns, it would be necessary to include occupations that naturally derive from fulfillment and those that do not. For example, under the category of Enterprising, one might include business executives to allow for the man who would be expected to have achieved success both professionally and personally; and bank clerking to allow for the unsuccessful man who is enterprising by nature. The important distinction between the existential theory and Holland's lies in the fact that it does not presuppose an individual becomes a truck driver because of a natural inclination that way. Rather, the existentialists emphasize the fact that a man might drive trucks because he was either a success or failure at the objectification process. A truck driver can be called successful if he has fulfilled his natural tendency in that direction; but, on the other hand, he will be alienated from his work if he chose to drive trucks in order to shrink from the demand of a career toward which he is naturally inclined.

On the surface, the existentialist would argue little with Anne Roe's (1958) need-satisfaction based theory of occupational choice. However, Roe's acceptance of Maslow's hierarchy of needs reduces harmony between the two theories. Simons maintains that the existentialist's need for fulfillment is similar to the eight needs listed by Roe in her theory. However, nowhere in the writings studied does the existentialist attempt to analyze the basic need that presses one toward fulfillment. All that can be said is that a careful reading of the literature leads to the belief that Maslow's breakdown of needs appears to be a logical outcome of an analysis of the existentialist's need for fulfillment. In this case, the two theories appear to be compatible in that they point to career choice as the result of basic needs.

In his review of Super's theory, Simons is of the opinion that the theory offered by Super has contributed a great deal of insight into the field by clarifying the concept of vocational development. He feels Super accomplishes this by pointing out that vocational development, like emotional, physical, cr intellectual development, is a dynamic thing. In this dynamic process are stages in the choice of a career as there are stages in any kind of growth. The individual commonly manifests this growth by exploring the fields open to him, establishing himself in one of them, and finally maintaining himself in this choice.

This aspect of Super's theory presupposes a kind of dynamic growth in vocational discovery. This view is compatible with the existentialist's view of the choice process.

Super states that vocational development is not just analogous to personal development; rather, it is a specific aspect of personal development. As an illustration, the counselor, in order to do an effective job of aiding vocational development, must have a good grasp of the personal adjustment that he is trying to further. Thus, vocational guidance includes as an integral part, the aiding of a person to develop and accept an integrated and adequate picture of himself. The only criticism that the existentialist would have to this view is that he would feel that the theory does not go far enough. According to the existentialist, there is a need to emphasize that the decisions leading to and including final vocational choice actually form the personality. It is precisely these decisions that give the individual the opportunity to stand out as being fully responsible before his fellow men in an objectification process. Such decisions provide the opportunity for man to project his true personality for others to criticize or praise. Individuals also tend to use such opportunities to withdraw from the decision and, thus, retreat into themselves. The important distinction, however, is that the existentialist would say that vocational development is the foundation of personality development rather than being just one aspect of it.

Tiedeman and O'Hara (1962, 24) stressed the fact that an individual's personality is shaped by his perception of his career choice. The individual conforms, consciously or unconsciously, to the norms and values of those individuals already established within the vocational setting. Conversely, the actual norms and values held by individuals entering the vocational field can and do change the concept of what constitutes the particular career field entered. It is this interpenetration of self-concept and career-concept that is the root of this theory of vocational development. Tiedeman and O'Hara place a great deal of emphasis on this interpenetration of vocation and personality developing gradually through many small decisions. However, it is these small decisions that collectively add up to become the dynamic process of socialization.

It is Simons' opinion that a marriage between the ideas of Tiedeman and

O'Hara and those of the existentialists seem to be possible. The existentialists would certainly have no reason to doubt that there is a great deal of interpenetration of the individual personality and the world of the career. It would appear obvious that the socialization process includes the formation of the personality. However, existentialists would point to the fact that this decision of whether or not to conform to the norms of the vocational choice is an objectification process. In other words, no matter how small, the individual has the option of objectifying himself before others or conforming in order to escape the painful process of having others see him as he is.

Tiedeman and O'Hara's position that the process of vocational development is not one major decision, but rather an infinity of minor decisions, is most acceptable to existentialists. However, because the existentialists have developed a system of vocational development, it appears they are renouncing the more fluid concept of these authors. Nevertheless, it is clear from their works that the existentialists insist that vocational development does indeed consist of a series of decisions with the final career choice being most significant only because it highlights an entire style of life.

Simons points out that Tiedeman and O'Hara's theory of vocational development, like so many other theories, is written with the few in mind rather than the whole population. This seems to be true, since in its normal context, career usually refers to the professional career. On the other hand, rarely is the man on the assembly line considered to have a career. In the sociological sense, such a worker does not have a career; however, in the psychological sense, the worker does have a career. His choice of work could be the result of many decisions, pressures from home and environment, intelligence, personality, and the like. From the existentialist's point of view, the job on the assembly line may be a result of objectification and fulfillment or the result of retreat from the lack of objectification, in which case it is an alienation from life as well as work.

Most important of all, it is hoped that the real value of the existentialist's application of the concept of objectification and its essential nature in the dynamics of vocational development will provide a valuable contribution to the development of a theory of career choice that furnishes an explanation of the individual's unique, free, self-directed and responsible career choice.

Concluding this chapter, the theoretical contributions of Ginzberg, Super, Holland, Roe, and the Existentialists offer the Comprehensive Career Education Model Project the potential of developing a theoretical framework for research and validation prior to, and during the development of the instructional, guidance and placement components of the model.

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Contemporary Definitions of Placement and Their Implications to Career Education

Service Definitions of Placement

The review of the literature provides a wide range of definitions of placement. This range extends from the simple service type of placement to more complex definitions incorporating the concept of a systems approach to placement as part of a total instructional and guidance program.

Erickson (1950,1) defines placement as a service whose purpose is to help a pupil secure the most effective relationship to a job or to take the next step in his educational or personal program. A similar definition by Moser and Moser (1963, 2) states that placement offers assistance to the individual in taking the next step, whether toward further training, a job situation, or a different course of study. Smith's (1951,3) definition follows the same theme in describing the function of school placement as having the responsibility for assisting the student plan for the next step.

Willey and Andrew (1955,4), in defining the guidance program in terms of the services it provides, emphasize placement's important function within guidance. Hatch and Stefflre (1958,5) describe placement as that service given to students to obtain employment or additional training. Froelich (1958,6) simply defines placement as a service that helps pupils carry out their plans and act upon their choices. A little more inclusive definition of placement as a service is offered by Downing (1968,7) who states that placement is a service within the guidance program that is designed to assist students in the election of suitable courses or curricula, extra-class activities, and part-time or full-time employment. Hatch and Stefflre (1965,8) augment their previous definition of placement by expressing it as a continuing adjustment service to pupils in that it assists them in such post school activities as the selection of appropriate occupations, education institutions and part-time employment.

A further development of the service-oriented type of placement is presented by Stoops and Wahlquist (1958,9). According to them, the nature and scope of placement encompasses more than just aiding students in securing a job after graduation, for it requires guidance in the proper selection of pre-job training. According to these authors, the placement service should begin with proper training and provide follow-up service in order to help the students advance toward job satisfaction. Thus, the placement service, as part of the total guidance program, is concerned with helping the student choose wisely and then begin working toward the goal of job and career satisfaction. These same authors hold that the program is a set of resources aimed at bringing about an adjustment of the pupil. The program is designed to utilize all school resources and deal particularly with the special problems of student, work directly with pupil problems and needs, and provide data and services for the school staff so that the entire school program may be carried out in an effective manner.

Hamrin (1953,10) while defining placement as that service which helps students take the next step, adds that the placement program, like the whole guidance program, is a long-term affair. He further points out that it is not feasible to wait until the student is about to graduate and then think about placing him. Accordingly, provision must be made early in the high school career for those students who will possibly drop out. Therefore, the high school placement program must begin with the freshman year and continue through graduation or until such time as the student leaves school. Finally, it is the duty, according to Hamrin, of the high school to provide the needed placement and follow-up services.

A similar concept of placement using the counseling service aspect is presented by Froelich (1950,11). He points out that while concerned with the success of students in finding jobs, guidance must also provide service to help the students carry out decisions reached during counseling. Thus, placement should be concerned with helping the student take the next step, whether it is finding a job, finding a place in an appropriate extra-curricular activity, gaining admittance to appropriate educational facilities, admittance to a particular class, college, apprenticeship or a trade school.

Zeran and Riccio (1962,12) define placement's role as helping the student make an appropriate adjustment to the next situation, whether in the school or on the job. These authors feel that pupils need placement services within the curricular program rather than just help in obtaining jobs. In the same vein, Gibson and Higgins (1966,13) concur that placement is far more than job placement. Placement involves the placing of the pupil in a curriculum, a particular course, in beneficial activities, and the various kinds of situation that can suitably provide him with needed experiences. According to these authors, assistance in part-time or postgraduation job placement may also be a guidance activity at the secondary level and in higher education. Finally, it is their opinion that the act of placement is not the entire process or an end in itself; for follow-up procedures are needed to investigate and evaluate the effects of placement on the individual.

Placement as the connecting link between the school and the community is expressed in Erickson and Smith (1947,14). These authors define placement as that activity that provides the connecting link between the school and the next situation that the pupil is planning to enter. Placement, as proper adjustment to the next situation, includes college selection, part-time education or training, and placement on a job, in addition to many other situations that the pupil meets upon leaving school. Placement is a cooperative enterprise involving the school and other placement agencies operating in the community.

A New Jersey Department of Education publication (1969,15) concerning job placement defines placement as an essential service within the school's total career development program.

Kowitz and Kowitz (1968,16) define the role of placement as an integral part of the educative process. In this process, placement at all stages of the school operation seeks to match the needs of the student with the instructional offerings. Later it assists in launching the student into the world that lies beyond the secondary school, whether it consists of vocational training, university training, or employment. The placement activity has a growing role as the first line public relations agency because of its contacts with parents, employers and universities.

System Approach Definitions

While not defining placement as such, Campbell et. al., (1971,17) developed a procedural model involving a system approach for improving guidance programs in senior high schools. This model utilizes a system approach emphasizing behavioral objectives, gives alternative methods for accomplishing such objectives, provides program evaluation strategies, and incorporates guidelines for program change adjustment. Such an approach promises to provide critical assistance in the development of the placement definition and function within the Comprehensive Career Education Model.

Herr and Cramer, also while not defining placement (1972,18), contend that placement is not synonymous with counseling and guidance, neither is it a mutually exclusive event. From their viewpoint of a systems approach, guidance as a stimulus to vocationalization is a process which contributes to placement. Finally, in a very real sense, effective placement of students is the end product for vocational planning (Gribbons and Lohnes, 1958,30) or crystallizing of vocational preference (Super, Starishevsky, Matlin, and Jordaan, 1963,20).

In order to establish a truly comprehensive placement program to serve the needs of all students it is necessary to consider all the successful characteristics of past placement efforts, develop new innovations and directions for placement, and incorporate them into a systems approach that is capable of addressing itself to behavior objectives, alternative methods for accomplishing such objectives, program evaluation strategies, and program change and adjustment.

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Toward A Career Education Definition of Placement

The Review of the Literature represents an attempt to provide a history of Placement efforts, the major theories of career development, and contemporary definitions of Placement in order to arrive at a comprehensive Placement definition that is compatible with the broader concept of Career Education.

A successful Placement component depends not only on historical contributions and contemporary definitions but especially on the contributions of the major career development theories that offer a theoretical framework capable of identifying and utilizing the major decision or transition points that occur during the Career Education process. These major decision or transition points are critical in the development of the Curriculum, Guidance and Placement components.

The delivery of the Curriculum and Guidance products allow Placement to supply the individual assistance in selecting from the many choices, the most appropriate alternative as he moves from one transition point to another during his educational experience. These alternatives depend upon the delivery of the total career education model in order that a competent, self-directed career decision involving educational placement, job placement and special service placement is achieved.

DESCRIPTION OF THE PLACEMENT MODEL

Introduction

The goal of the Comprehensive Career Education Model is the career relevant placement of all students exiting from the program, whether by graduation or by leaving prior to graduation. If this goal is to be achieved, a comprehensive placement program must be developed. The parameters of the placement program must be identified and described, the various components defined, the program field tested and evaluated, and guidelines written to provide the program the flexibility to be transported to any school district in the nation.

Program Parameters

The components of the comprehensive placement program are job placement, educational placement, and placement for special services.

Job Placement provides organized assistance for students, to help them in securing employment (1) on a full-time basis upon leaving the school system via graduation or dropout; (2) on a part-time basis while still in school including both regular and "spot" labor situations; and (3) summer work.

Educational Placement provides organized assistance for students to help them in selecting and obtaining admission to appropriate types of post-secondary educational programs. These programs include college, junior or community college, technical school, business or trade school, industry-operated apprenticeships and on-the-job training. Armed forces training programs are included as an educational resource for the graduate or dropout.

Special Service Placement provides the orderly referral of students and/or their parents to school or non-school resources which provide needed assistance for problems in areas such as health, mental health, welfare, marital or family problems, vocational rehabilitation, occupational training or work adjustment. The rationale for this particular service is to help students solve certain problems and thereby enable them to more satisfactorily profit from the main stream of Career Education.

Overview of the Model Components

Figure 1 on page 57 provides an illustration of the relationships between the components of the Placement model. These components include:

School District Action on Placement

The local school district decision to install the Career Education Model implies a decision to install or not to install a Comprehensive Career Placement Model. The defining of the character of the local placement program is the responsibility of the local school district's administration. If the decision is to install the placement program the administration must select a coordinator to provide leadership for the development of the program.

Student Assessment

The purpose of the student assessment is to gather data that will assist in describing the needs of the student population. These needs will reflect the occupational goals and post-secondary educational and employment plans of the students. This information will identify the type and number of placement opportunities needed, and indicate to the placement staff the type of community resources that must be developed to accomplish relevant placement. This in turn will provide additional information as to the needs of the individual and the group so that a relevant placement program can be developed.

CCEM
PLACEMENT MODEL

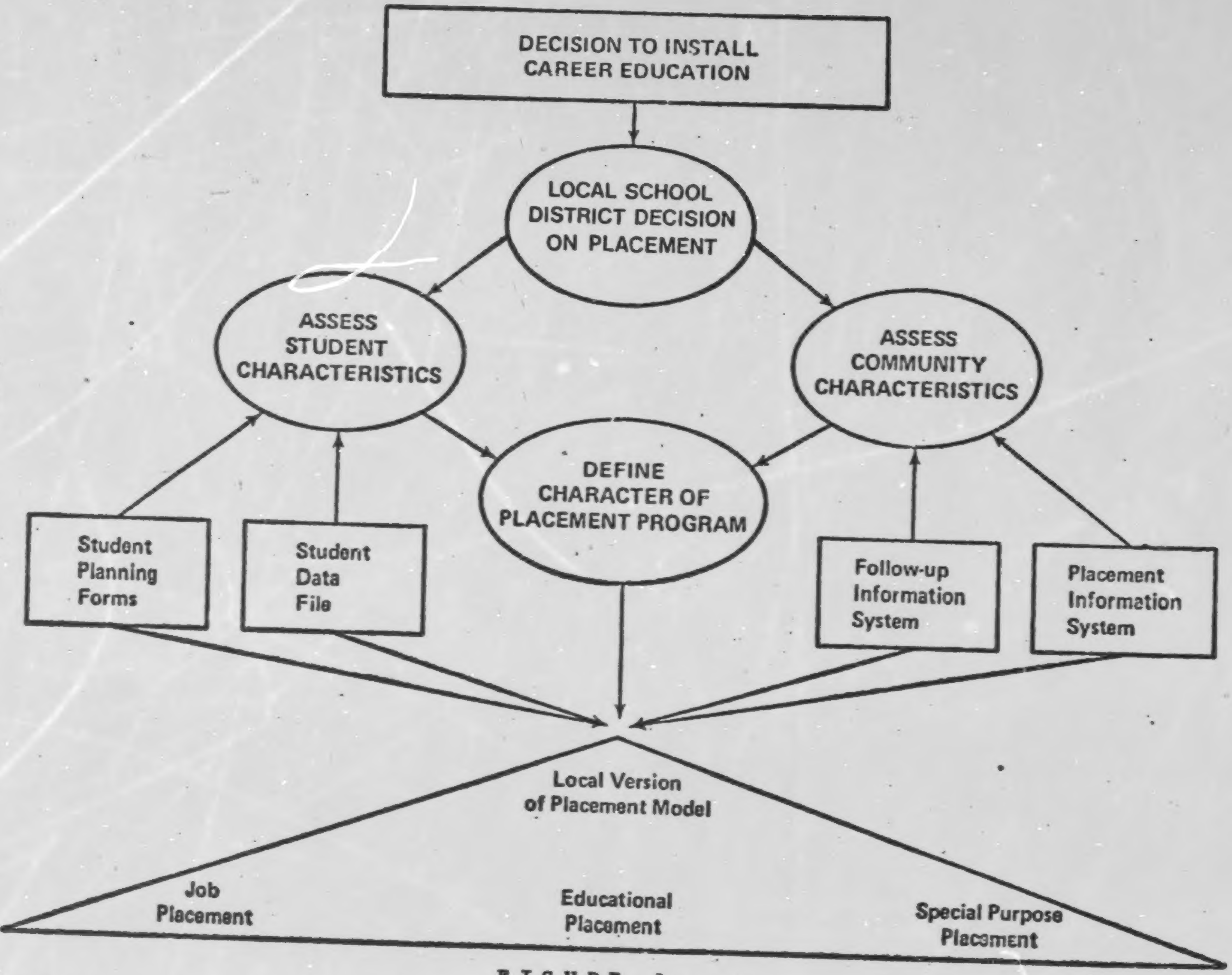

DECISION TO INSTALL CAREER EDUCATION
LOCAL SCHOOL DISTRICT DECISION ON PLACEMENT
ASSESS STUDENT CHARACTERISTICS
ASSESS COMMUNITY CHARACTERISTICS
DEFINE CHARACTER OF PLACEMENT PROGRAM
Student Planning Forms
Student Data File
Follow-up Information System
Placement Information System
Local Version of Placement Model
Job Placement
Educational Placement
Special Purpose Placement

FIGURE 1

In order to conduct the student assessment a questionnaire must be used. This questionnaire is designed to provide for either manual or automated tabulation of the responses. Examples of the questionnaire items include: (1) Identification of the student's occupational goal, (2) Identification of the student's educational and/or training plans, (3) Identification of the student's employment plans, (4) Identification of the student's choice(s) of colleges or universities (if any), (5) Identification of the student's choice(s) of trade or technical schools (if any), (6) Identification of the student's financial needs for any post-secondary education or training (if any), (7) Identification of achieved and projected high school preparation, and (8) Any other descriptors deemed necessary to define the characteristics of the student population. Additional student data is available from cummulative records, the ongoing pupil data system, and the continuing assessments conducted for the purpose of updating information reflecting student needs.

Community Assessment

An assessment of all community resources related to occupational placement, educational placement, and special services placement is essential to the design of the placement program.

The successful placement of students is dependent upon the development and utilization of existing community resources. A thorough community assessment must be conducted to provide the placement staff with an inventory of all available community resources. The inventory will provide data listing (1) All opportunities for students seeking full-time, summer-time, or part-time employment; (2) opportunities for additional training and/or education post-secondary; and (3) opportunities for special services placement in addition to those offered by the school system.

Definition of the Character of the Placement Program

The Placement Program is characterized by educational placement, job placement, and placement for special services. Each of these placement functions serve the particular needs of the student and the community; involve community and school cooperation; and demand clearly defined goals, staff organization, and school district support.

The Relationship to Other CCEM Components

The Placement Program as part of CCEM Model I relies upon Curriculum, Guidance, Community Relations, Staff Development, Evaluation, and Support Systems components for delivery of certain activities for it to succeed. (See diagram on page 60.) Placement relies upon each of these components to provide information which will facilitate the accomplishment of its goals and objectives. In return Placement will provide information and student service directly pertinent to the needs and objectives of the other components.

Curriculum

The curriculum has the primary responsibility for the delivery of the awareness, exploration, and prepartion exercises which make the student "placeable". For example, one of the functions of Job Placement involves the responsibility of providing relevant information about the "world of work" which is incorporated into the development of these experience units.

Guidance

Placement is one function of the guidance program; therefore, its relationship to guidance is that of one of the parts that make up a greater whole:

Relationship of Placement to Other CCEM Components

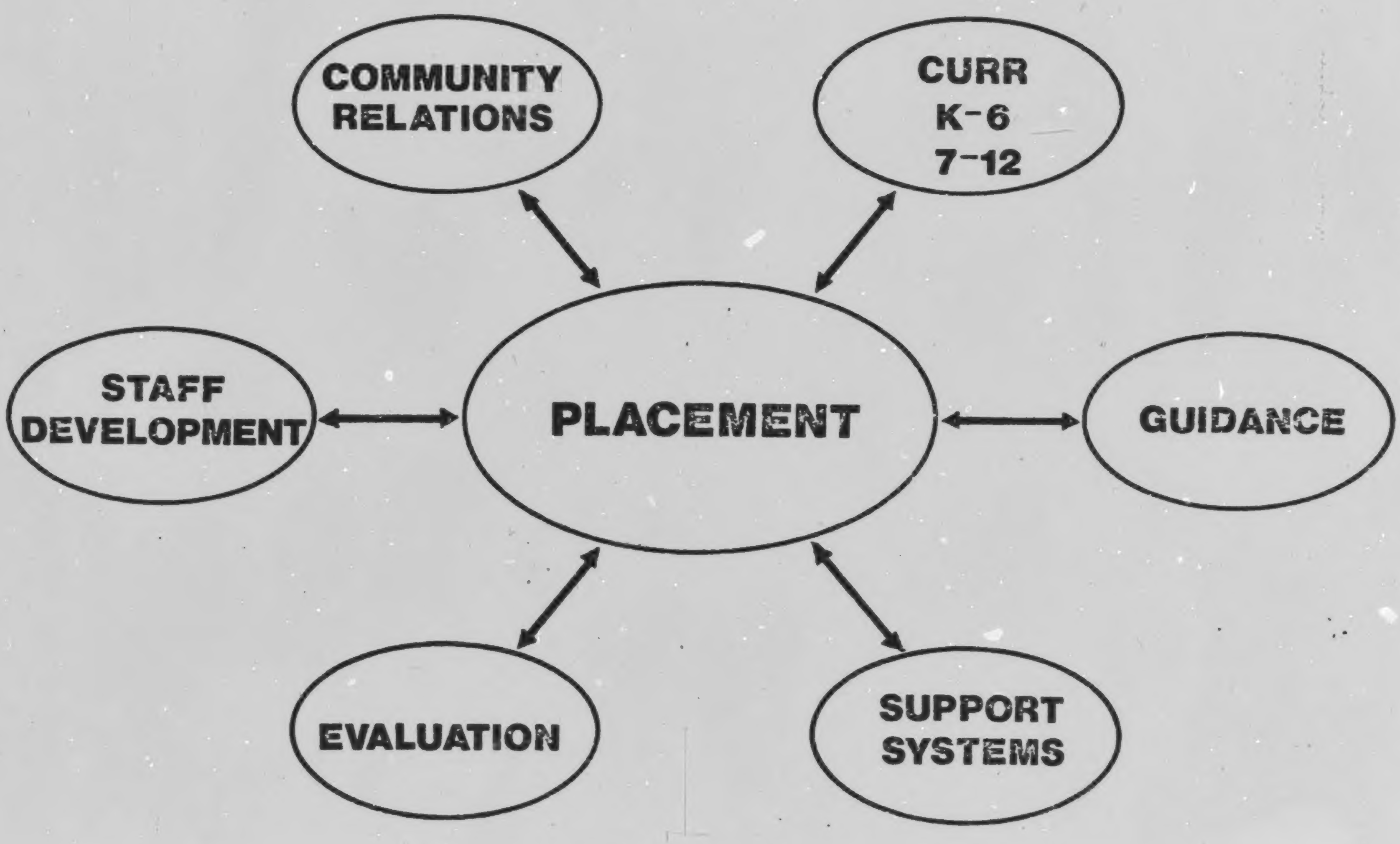


FIGURE 2

Guidance. The guidance program has the secondary responsibility for the delivery of the awareness, exploration, and preparation experiences which make the student "placeable". It has the primary responsibility for helping each individual student to utilize all possible input (information and feelings) in the development of a personal course of action.

Community Relations

Critical to the Placement Program is the establishment of good community relations. It is through community relations that placement opportunities, in all three categories, will become available to students. Student assessment, which identifies student characteristics and needs, and community assessment, which identifies the available placement opportunities, will identify specific school and community resources needed if the placement program is to function effectively.

Staff Development

The staff development component provides orientation and preparation of the placement staff members. It also provides staff members from the other components with an orientation to and preparation for their involvement in the Placement component. Staff development will also maintain up-to-date information about the placement program and keep staff members from other components informed of program changes and the implication of such changes for them.

Evaluation

The evaluation component provides a continuous process and product evaluation of the placement program's efforts to place students. At the same time, Placement provides Evaluation in-put concerning the efforts of the other CCEM components toward the stated goal of 100 percent career relevant placement of students exiting the program.

Support Systems

The support systems component provides the placement program with the necessary software and hardware needed for the storing, retrieving, and updating data pertinent to Placement and the means for evaluation of the program.

Formative and Summative Evaluation Components

Both Summative and Formative Evaluation are critical to the successful functioning of any system. Their development provides the managing of the system with three essentials for coordinating the efforts within the system: (1) a precise, well-delineated program plan of action; (2) a method for assessing and pinpointing malfunctions in the system; and (3) a means of interceding in the planned process to correct those discrepancies.

The Summative Evaluation Component is interfaced with, and reliant upon the Formative Evaluation Component. Both are based on the concept of "critical outputs". In other words, both evaluate the functioning of the system for each component, or subcomponent in relation to the critical outputs expected at various stages of the process being evaluated.

The Summative Evaluation Component is designed to answer the question: "Was the goal attained; and, if not, why?" It is because of the "why" that the Summative Evaluation is reliant on the Formative Evaluation.

The Formative Evaluation is designed to pinpoint, as closely as possible, the exact function of the program. The finer the design of the Formative Evaluation, the more accurate the pinpointing of trouble if it should arise. Formative Evaluation must be designed for each component, and within each component and subcomponent, and to evaluate the minor processes within subcomponents.

A second, and perhaps more important, function of the Formative Evaluation is to allow for the adjustment of the system while it is functioning. Thus, not only does the Formative Evaluation permit the pinpointing of weak links after the fact, but also allows the adjusting (reallocation of resources) of the system so that the program goals are attained as planned.

The Formative Evaluation is accomplished in a manner paralleling that of the Summative Evaluation. Critical outputs (outcomes, products) are designated as expected from certain components at certain times. (Goal objective = Critical outcome + conditions under which it is expected -- time, how measured, etc.). If, and/or when, these goals are not met (i.e., the outputs are not produced by the specified time), the source of the problem can be readily traced.

Simply stated, these two functions in outline form include the following steps:

I. Formative Evaluation Component

    A. Chart (Flow Diagram in Appendix A on page 140) the steps in the process (the components, subcomponents, decision points, and interfaces).

    B. Identify the critical outputs expected from each component.

    C. Create a time-line indicating:

        1. The time at which the output is expected, and/or

        2. The time-span allowed a particular component for its functioning under given constraints.

    D. Collect information on, or data indicative of, the critical output.

E. Compare information from step D with the expected products and expected deadlines from steps B and C.

F. If there is a discrepancy, trace its source using the chart from step A.

   1. Report the source of the discrepancy;

   2. Correct the discrepancy, if possible; or

   3. Adjust the expectations according to the new constraints.

II. Summative Evaluation Component

A. Identify critical outputs of the program as specifically as possible.

B. Collect information on, or data indicative of, the production of the critical output.

C. Compare critical output information (step B) to critical output expectations (step A).

D. If there is a discrepancy:

   1. Trace the source of the discrepancy through the formative evaluation schema,

   2. Correct the discrepancy (make plans to correct it, if possible), or

   3. Adjust the critical output expectations according to the new constraints.

Formative Evaluation is also interfaced with the Summative Evaluation in another way. The two are interdependent. The critical outputs for each component of the Formative Evaluation schema are dependent on the global program goals set as part of the Summative system, just as the Summative schema is dependent upon the Formative system for pinpointing, should a breakdown occur.

For the use of those implementing the placement model, a series of seven components (simulated) flow charts are included. (See Appendix A, page 140.) The seven are: (1) LEA Action Component, (2) Student Assessment, (3) Community Assessment, (4) Program Definition, (5) Program Planning, (6) Data Bank, and

(7) Local Implementation.

These charts provide, at an intermediate level, a sequential, pictorial summary of the way in which the model has been conceptualized during development. They present, in graphic form, the same information found in the narrative of this paper. It should be interjected that more detailed analysis (flow charts) be prepared than found in Appendix A.

Each of the process boxes should be further analyzed to produce similar charts for each process to enable the Formative Evaluation system to be accomplished as thoroughly as possible.

When this is accomplished (the specific local outputs identified and the specific time constraints set), the program may be evaluated. This evaluation will lead to administration of the system in an efficient manner.

Example of Summative and Formative Evaluation Processes

A simplified example will illustrate how the two evaluation components function. Although the example may not be directly applicable in a real situation, the method involved is usable and illustrates the type of considerations to be used.

> Suppose we are interested in the goal of having a workable proposal for local implementation of the career placement model written by June 30, 1973. This goal contains the critical outcome (the proposal) produced by the "Local Version of Placement Model -- Planning Component". (Two things should be noted: (1) The critical outcome is not the goal in its entirety -- the critical outcome does not specify the due-date, and (2) This is a rather global

goal, but is a subgoal of "implementing the Career Placement Model" and yet itself has subgoals.)

For our purposes, this is a summative goal, i.e., on June 30, 1973, we look at the proposal, if it is finished, and judge (by some explicit, measurable criterion) if it is workable. This process of comparing what we expect on June 30 with what we have on June 30 is the total Summative Evaluation process.

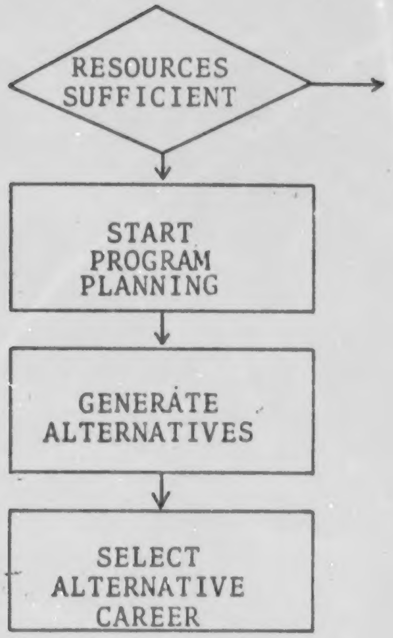
However, we do not want to wait until June 30, if at all possible, to find out that we are not attaining our goal (either that the proposal is not workable or that it cannot be finished by June 30). Somehow we would like to insure that the Summative goal is reached. This is the function of our Formative Evaluation system. How does it work?

In order to know how it works we must first look at the flow chart (see page 67) for the component which will allow us to attain our Summative goal (i.e., by examining the critical outcomes that must be forthcoming to reach the Summative goal). To each of these process boxes, decision points, etc., we attach a time at which its function must be accomplished; that is, we make subgoals out of the critical outcomes.

The example expressed by the chart allows us to do what might be called a mini-summative evaluation at each step. This step-by-step comparison of the subgoals (that is, the critical outcomes at a particular time with what has, in fact, been done) provides the intermediate information needed to do the adjustments.

Suppose on June 30 the alternatives have not been generated. What has happened? We observe and notice that program planning has not started. What has caused this? Up above, we find that "Information for the Decision" was

FLOW CHART TIME-LINE



JUNE 11

JUNE 12

JUNE 15

JUNE 15

sufficient and was passed on time for a judgment as "Resource Sufficiency." All else above has functioned according to plan. Hopefully, this step-by-step comparison of the subgoals and evaluation avoids the possibility of a breakdown before it happens.

What can be done in the event of a breakdown? Three things are possible: (1) If there is a flow chart time-line for these processes, we can seek further clarification before correcting; (2) If we can spot the deficiency, such as an extra man being needed to help re-allocate resources, we might correct it by assigning a helper from another area; (3) Or, if we decide that we are unable to make a correction immediately, we might adjust the goal to make it more realistic, i.e., adjust the time-line by three days and re-adjust our expectations elsewhere.

In summary, in order to put things in perspective, note that the Summative goal for our example is an intermediate or subgoal in terms of the whole model implementation. Thus, at each stage, there is a commonality or interface between Formative and Summative processes.

SCHOOL DISTRICT ACTION ON THE PLACEMENT MODEL

Role of the School Board

Any local version of the placement model will resemble the prototype, but may possess unique features reflecting local needs identified by the assessment of student and community characteristics and needs.

Before a local decision is made to implement the model, the school board must clearly understand the implications of adoption. These implications include the need to: (1) Identify someone to design and install an adaptation of the placement model to meet the local requirements; (2) Identify someone that will be assigned the responsibility and provided the authority to coordinate and manage the placement program; (3) develop a scheme to obtain support from both the professional staff of the school district and key organizations, agencies, and individuals in the community; (4) develop a means to determine the needed resources and a system for carefully allocating those resources; (5) develop a plan to evaluate the progress of the local implementation of the placement program; and (6) understand that students must be exposed to experiences through the curriculum and/or guidance activities to assure proper preparation for placement.

If the school board is not committed to support the concept of placement and address the implications, serious question must be raised on the decision to implement the model.

The school board's decision to install a Career Education Model that will attempt to achieve career-relevant placement for all students implies recognition of a need to adopt the placement model.

The philosophical issue of whether to adopt a Career Education placement program in the school district must be decided at the school board level. Once the school board makes the commitment, it becomes necessary for the board members to support their verbal commitment by providing the necessary resources and personnel for the program. The local decision to adopt a placement program must be based upon an understanding of the specific needs of the students, the availability of resources within the community, and the ability of the local school board to provide adequate personnel and financial support. The local decision must be consistent with realistic program possibilities. If the local school district does not have the resources available to install the total program, a decision must be made concerning what components of the program are most relevant. This local decision should provide for the adoption of those components of the model that best meet the needs of the students and the community.

Role of the Local Administration

Once the school board has approved the implementation of the placement model, the local administration must carefully analyze its role. The assessment of student characteristics and the assessment of community characteristics, as well as an analysis of the local district's resources, goals, and constraints, will provide the necessary data to develop this role. These variables will assist the administration as it provides coordination and management of the placement program, obtains the support of the professional staff, obtains the support of the community, identifies and allocates the necessary resources and materials, establishes an evaluation process, determines unique local requirements for the adoption of the model, and identifies the necessary prerequisite activities for students to experience before placement can take place.

The local administration must seek and obtain the best individual available to serve as coordinator for the placement program. The local administration must delegate to him the authority to fulfill his responsibility in the management of the program. The type of coordinator or manager for the program will be determined by the local needs of each individual school district. These needs, based upon the characteristics of the students, the characteristics of the community, the size of the district, and other variables, will influence the type of coordination needed for each local program.

For the placement program to succeed, it is necessary to obtain the support of the professional staff. The coordinator's primary responsibility is to work with this group (administrators, counselors, teachers) in each school where it is to be implemented. Local needs and the unique characteristics of each individual school will determine the strategies (i.e., inservice training, personal contact, program planning, public relations using newsletters, etc.) to be employed by the coordinator. Care must be exercised to provide the professional staff with accurate information concerning the limitations of the placement program. Rash promises of success usually work to the detriment of the placement program. Diligence must be exercised to deliver all promises of program success made to the staff. To insure acceptance and development of a realistic program, staff members must be involved in all phases of planning. They can provide the coordinator with the best information concerning the reality of the program and the acceptance for it by all staff members.

For the placement program to succeed, it is necessary to obtain the support of the community. Community support will be achieved by the demonstrated success of the students who are placed. However, there is need for community support before students are placed. At this stage, community leaders can assist in program planning and development. Without the early support of the community, the fate of the placement program is obvious. The coordinator and the placement staff must work with professional organizations, service clubs, the chamber of commerce, business and industry, educational institutions, and other community groups and individuals to assure that the program will have every opportunity to succeed. Care must be exercised to deliver on all program promises made to the community. This will enhance the prospects for continuing community support and the overall success of the program.

The decision to implement the placement program requires the district to match its needs to its resources. If the school district is committed to developing a placement program that will meet the needs of its students, it must provide the coordination with all necessary resources. These resources must include all needed personnel, building requirements, audio visual and written materials, and financial requirements. In compiling the list of needed personnel, facilities, and materials, the coordinator must develop both a list that would meet the minimum requirements and a list that provides for maximum success. The local administration must analyze the coordinator's request for personnel, facilities, materials, and finances for the placement program and determine the degree to which it can support the demands. If the school district is unable to provide all of the mentioned necessary resources, a modification of the local expectations for the program must be made. The local school district must modify its version of the placement model to keep local expectations consistent with available resources.

When the local school district adopts the placement model, a formative evaluation system must be developed to monitor the progress of the program at critical points. The commitment on the part of the school district to provide the students and the community with a placement program implies the need to establish both formative and summative evaluation processes to determine how well the program is achieving its goals.

The diversity of school districts throughout the United States will produce unique requirements for each individual placement program. These unique requirements may result in different dimensions to placement programs between high schools in adjoining school districts or between two high schools within the same school district. Some requirements that, upon first examination, appear unique will be present in all school districts. The legal implications of operating a placement program may vary from district to district. It is important to be aware of the local or state laws concerning the employment of students and the restrictions concerning the providing of employers' lists of openings. The relationship of the local district with the apprenticeship programs and unions; the Equal Opportunity Act that spells out the conditions of employment for individuals regardless of sex, color, religion, or ethnic background; the scope of minority problems within a school district; and the relationship of the core city to the surrounding suburban school districts, are all of major concern. It is not the intent of this paper to discuss all possible requirements of local districts, but to suggest the need for each school district to adequately research its own situation and build into its model a program that will accommodate their specific uniqueness.

As mentioned earlier, the prototype placement program cannot be considered a stand-alone model. For it to function as written, it must rely on students receiving certain experiences through curriculum and guidance activities. The local school district must evaluate the need for such preliminary activities as they consider the adoption of the model.

ASSESSMENT OF STUDENT CHARACTERISTICS

Student Assessment Goal

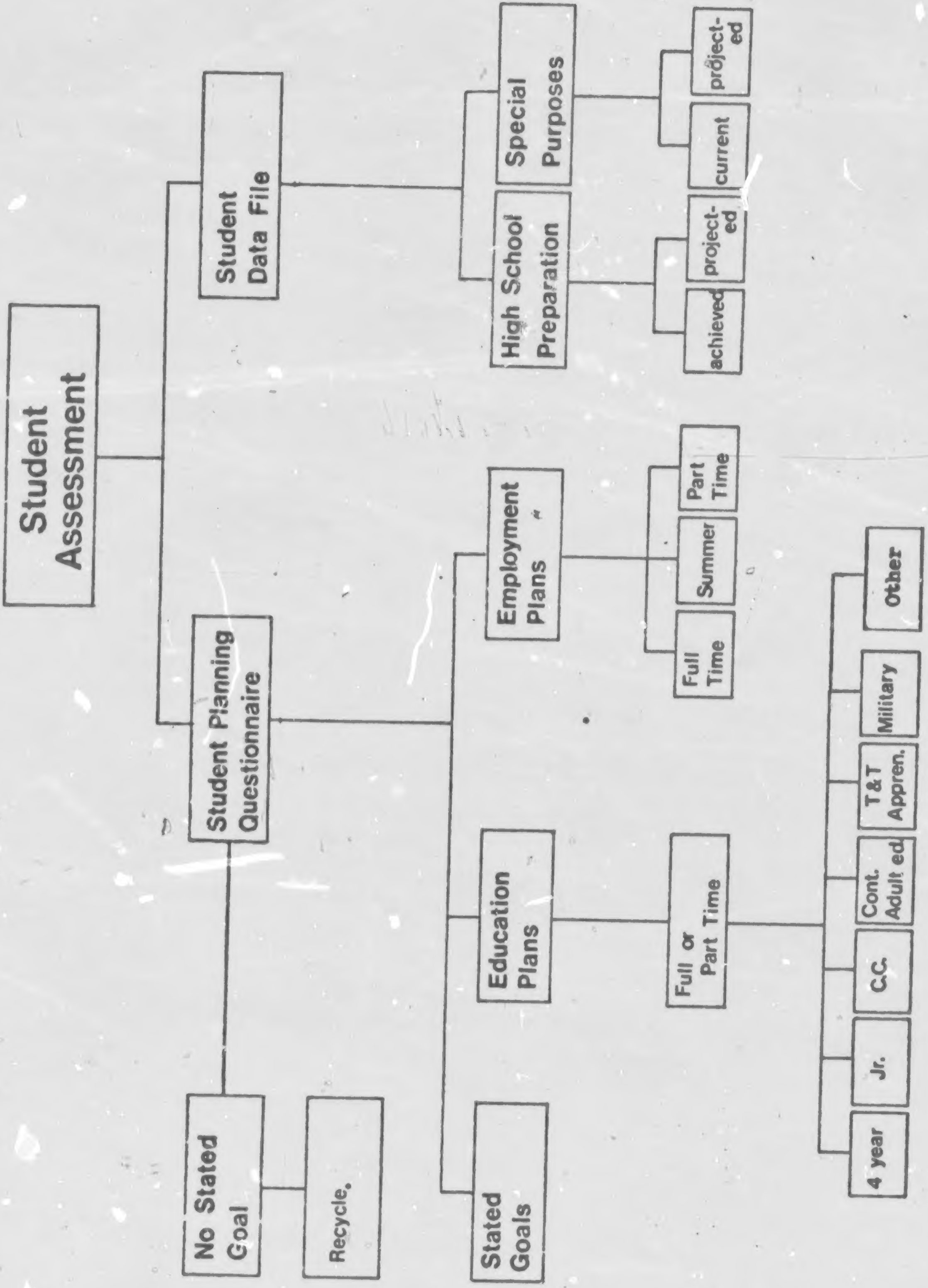
The goal of Student Assessment is to describe how the occupational goals of the student population relate to their achieved and projected educational and employment plans. This description will provide the information necessary to define the character of the placement program for the local school district. In order to accomplish this goal, the required data must be identified, the instruments and procedures for data collection developed, and a system of data analysis and reporting designed. It is important that the above information is gathered on a student-by-student basis for guidance and placement, as well as being collated to represent a student population. This will result in relevant program planning.

Information Requirements

Figure 1 on page 75 illustrates that the student data is obtained from two sources: (1) the Student Planning Questionnaire (see Appendix B) and (2) the Student Data File. The student planning questionnaire identifies what, if any, occupational goals each student has and his projected educational and employment plans to achieve these goals. The student data file also identifies the student's current level of preparation and provides an indication of his probable success in achieving his projected educational and employment plans.

One of the most important answers the questionnaire provides is what, if any, occupational goals each student has. If a student does not state an occupational goal(s), a determination must be made as to whether the student is

Figure 1


Student Assessment
Student Data File
High School Preparation
achieved
project-ed
Special Purposes
current
project-ed
Student Planning Questionnaire
Employment Plans
Full Time
Summer
Part Time
Education Plans
Full or Part Time
4 year
Jr.
C.C.
Cont. Adult ed
T&T Appren.
Military
Other
Stated Goals
No Stated Goal
Recycle.

capable of stating a goal(s) or wants to state a goal(s). Once the determination is made, the appropriate action, if indicated, may bring the student to the point where he is capable of making some decision(s) about his goal(s). If the student does state an occupational goal(s), then the determination must be made of the appropriateness of his stated goal(s). His goal(s) may be to continue his education and/or training, secure some type of employment, or a combination of both of these possibilities. Once these plans have been determined, additional assessment is necessary to determine what specific path(s) the student wishes to follow.

If the student wishes post-secondary education and/or training, he must consider whether he plans to pursue this choice on a full- or part-time basis and the type of education or training he wants to enter. The choices of educational or training opportunities illustrated in Figure 1 on page 75 include: four-year college or university; junior college; community college; trade, technical, or apprenticeship programs; continuing or adult education; occupational preparation in the military services; and others (for example: on-the-job training, correspondence training, etc.). Students who indicate they may wish additional education and/or training, but are not sure of specifically the type of program they should enter, must be identified for additional guidance and counseling.

Any student who indicates post-secondary employment plans must determine what type of employment he desires. He may want to enter into a full-time job, a summer job, or a part-time job. A determination must be made whether the student is looking for a job or already has a job lined up. Each student looking for a job will need to identify and record the specific types and geographic locations of jobs he is qualified for and interested in obtaining.

This information will assist the placement staff in the identification of specific employment areas that need to be emphasized.

Many students may indicate plans for both employment and additional education or training. As an example, a full-time student may feel the need to work during the summer prior to entering college in the fall, or he may need a part-time job while in college. Another student may want to drop out of school, work full-time, and go to an adult education class to obtain a GED.

When the questionnaire is administered to students other than graduating seniors, it is necessary to determine the projected high school plans of each student. Examples include students who plan to enter a vocational auto or electronics class; pre-college training courses; or pre-technical training programs.

Additional data would include the types of work experiences the student has had in relationship to his stated occupational goal(s). For instance, the student may have stated as one of his employment plans the desire to work on a part-time basis as an apprentice auto mechanic while pursuing additional training in a community college. Another example would be the student who wants to be a pharmacist and has part-time work experience in the summertime, or after school hours, working in a local pharmacy or other related experiences.

Other than past work experience, the data described thus far must be considered in light of these factors: (1) it represents only how the student views himself in terms of his goals and his plans for achieving these goals; and (2) it is future-oriented. Before this data can be validated, the following data must be obtained from the student data file:

What has the student achieved in the way of high school preparation toward the realization of his occupational goals? If, for instance, the student's educational plans include attendance at a four-year university, a decision would be made to determine if the student is successfully pursuing a college-preparation program in high school. If the student's employment plans include working full-time as a secretary upon exit from the high school, the question must be asked: "Has this student taken the appropriate courses to qualify for the necessary secretarial skills?" The information supplied from the student assessment not only indicates the degree of goal realism achieved, but also supplies the counselor or teacher with an indicator of the probable success or failure in relation to goal attainment.

Another type of valuable information concerns the special service program(s) the student is currently enrolled in. The decision must be made as to the type of special-service assistance needed in order for the student to pursue the occupational choice after leaving high school.

Instruments and Procedures for Data Collection

Student Assessment Questionnaire

Format: The purpose of the Student Assessment Questionnaire (see Appendix B, page 148) is to obtain data which describes the occupational goals and the post-secondary educational and employment plans of the student population. Ideally, this information should be collected in an individual interview session. However, restrictions of time and availability of staff members make this method impractical, if not impossible. The best alternative is to administer the student planning questionnaire to groups of no more than fifteen students. The instrument must be given by a trained proctor (see Appendix C regarding Talk-Through Instructions on page 165).

The questionnaire is composed of four major sections. The first section deals with the student's decisions about his occupational goals. The second section is concerned with the student's education and/or training plans for the realization of these goals. The relationship between the student's employment plans and his occupational goals is found in section three. The focus of section four is the student's projected high school preparation and the identification of his past employment experience. (See Appendix C for details regarding Instructions for Administering the questionnaire and instructions to the students for filling out the questionnaire, page 165.)

Student Data File

Since each individual school district will design its own Student Data File (permanent record), a uniform format for such a file is not recommended at this time. The intent of including a discussion of the file is to identify information pertinent to the student assessment process, which should be retrieved from the Student Data File. This data file should include the following:

1. Past and current student course work
2. Student grade point average
3. Ability, aptitude, interest, and achievement scores
4. Past and present special-purpose classes or programs
5. Parent and family backgrounds, including place and length of residencies
6. Socio-economic information
7. Personal health history
8. Attendance and tardiness information
9. Hobbies, extracurricula activities, etc.
10. Aspirations, plans, potential, etc.

Ideally, the information in this file is stored in such a way that it can be retrieved or updated with a minimum of effort.

System of Data Analysis and Reporting

The responses from the Student Assessment Questionnaires represent raw data and must be subjected to a number of analysis procedures before they are considered valid for use in defining the character of the student population.

The elimination of the "invalid" questionnaires is most important in the analysis of data. Such questionnaries, due to inconsistent or incomplete responses, must be separated and referred to the placement staff for the purpose of additional interviewing and counseling follow-up.

The staff members who administer the questionnaire are responsible for the processing of the questionnaires. The information from all the questionnaires (other than those which do not appear valid) is to be entered on a response sheet. The design of the response sheet will be determined by the system of response tabulation used. Recommended methods of tabulation include: (1) manual counting, (2) a key-punch system, or (3) an optical-scan computer system. The size of the student population and the access to computer equipment are the basic factors to be considered in the choice of tabulating methods. The response sheet should allow for the identification of the student by: NAME, GRADE, SEX, and STUDENT NUMBER, and contain appropriate response blanks for each item on the questionnaire. This process is necessary since several of the sheets in the questionnaire will be separated and disseminated to placement, counseling, and instruction departments.

The purpose of the Student Assessment Questionnaire is as follows: (1) to assist the placement staff to identify the character of the student population in terms of the types and numbers of occupational goals the placement program must serve, (2) to identify the types of occupational information deemed necessary by the students to assist them to make a CAREER decision, (3) to provide input for instructional units related to career exploration and preparation, (4) to provide data for identification of the employment plans of the student population, and (6) to identify the accomplished and projected preparation of the students as related to their stated occupational goals.

The results obtained from the tabulation processes cannot be considered final. The responses obtained from the additional counseling procedures identified must be included in these results to assist in the definition of the character of the student population. When all the tabulation procedures and additional counseling processes have been completed, the net total responses are to be reported to the placement coordinator. This information, in conjunction with the information obtained from the assessment of the local community characteristics, is used to define the character of the placement program of the school district. This defines, in general terms, the system of data analysis and reporting. At the discretion of the local school district, in order to meet individual, identified needs, further data analysis and reporting procedures may be developed.

ASSESSMENT OF COMMUNITY CHARACTERISTICS

Definition and Purpose of Component

Community Assessment is the means used by the school district to identify all available placement-related facilities to assist youth in need of job placement, educational placement, and/or special service assistance. Community assessment implies the need for identifying economic, social, and educational resources that may be used for the placement of the youth in positions related to their educational and employment goals. In addition, there is need to develop an inventory of placement resources and demographic data which may be used in conjunction with the student assessment information in defining, developing, and operating the placement program.

Definition of the Community

For purposes of this paper, the term Community (including the placement opportunities contained therein) is defined geographically as "immediate", "state", or "national". "Immediate or local" refers to that area within approximately a twenty-five mile radius of the school. "State" refers to the state in which he lives, and "national" refers to all other ares of the United States.

Placement opportunities for the individual still in school will be most often restricted to the local area. For the exiting student, the next appropriate step in the pursuit of his occupational goal(s) must take into account all three of these areas; therefore, the placement staff has the responsibility for collecting as much information about placement opportunities as possible on all three levels.

Information Requirements

Appropriate placement of students depends upon the development and use of inventories that will provide information about: (1) opportunities for students seeking full-time, part-time, and/or temporary (such as summer or course-related) employment; (2) opportunities for post-secondary training, retraining, or education; and (3) opportunities for specialized counseling and/or social services in addition to those offered by the school district. This information, in conjunction with the information provided by the Student Assessment, defines the character of the placement program for the local school district. This definition is then used by the guidance and/or placement staff for both long-range and short-range planning and program development.

Collecting and Reporting of Data

Job Placement Opportunities:

National: Information at this level will identify projected full-time employment opportunities as reported in such publications as the United States Department of Labor's Occupational Outlook Handbook and the "Occupational Outlook Quarterly". This information can be made readily available to the students by purchasing these publications and filing them in a Career Resource Center. In some cases, this information can be stored and retrieved through the use of an automated retrieval system such as CVIS (Computerized Vocational Information System), which is discussed in a later portion of the paper (see page 124).

State: Information about employment opportunities at this level is divided into two categories: (1) projected, and (2) currently existing. The projected employment opportunities for the State of Colorado can be found in a publication, prepared by the Colorado Division of Employment, entitled "Occupational Outlook for Colorado, 1970-1975". (See Appendix E, pages 183-208.) As this publication was prepared in cooperation with the United States Bureau of Labor Statistics, such a report is probably available in most states. A report of this nature should definitely become a part of the Career Resource Center and be readily available to the students and staff of the school. This information can be retrieved either manually or from an automated system. Additional information of this type is compiled through contact with placement offices of institutions of higher learning, labor unions, and business and industry, etc., throughout the state.

As most occupational information published on the national and state levels is identified by the Dictionary of Occupational Titles classification system, it is recommended that any information not so classified be identified to at least the second level of the DOT. This process will facilitate the use of this information in the placement program.

The system used for the collection of this information is not treated in detail here as the available staff and resources will dictate how this is to be done. One method used by a public school district to obtain employment opportunities is found in Appendix D, pages 173-182.

One source for obtaining information about currently existing employment opportunities is the State Employment Job Bank. Many State Employment offices are setting up computerized job listings which can be accessed either by the use of remote, on-line terminals or daily printouts. Most of the job opportunities listed in the Job Bank are full-time and many of them require training beyond high school. Very few part-time and summer jobs appear on this listing. Another source of information is the private employment agencies. Again, these agencies usually deal with full-time jobs. Many of these jobs also require training beyond high school. Other existing opportunities are identified through contacts made with unions and with business and industry. These opportunities are also to be classified by the DOT system to facilitate access. Other sources of information include publications by Employment Departments, as is the case in Colorado, entitled "Inventory of Job Openings" and "Labor Supply Bulletins". (See Appendix E, pages 183-208 for examples of these publications.) The jobs listed in these publications are also mostly full-time in nature. If the student is seeking part-time or summer employment in other than his own local area, probably the best suggestion is that he contact the placement office in that area or, if possible, contact a friend or relative.

Local: There is probably less information published about current and projected employment opportunities for the local area than for the other two geographical areas already discussed. Yet, there is the need for local information relating especially to summer and part-time jobs. Therefore, it is in this immediate area that work must be done by the members of the placement staff. The three most common methods for obtaining this information are (1) personal contact; (2) telephoning; and (3) mail. While the personal contact method is probably the best, it is certainly the most time-consuming. Telephone contact is the next most desirable; but, the information obtained is, in most cases, less than complete. The process of mailing out questionnaires and fliers is the least time-consuming but probably produces the least information. However, all three methods should be used, as it is important to get as much information as possible.

Contact should be made with the following agencies or groups of people:

1. State Employment Service local office
2. Social Service organizations such as the Lions Club, Kiwanis, Business and Professional Organizations of Women, etc.

3. Business Organizations such as the Chambers of Commerce

4. Youth Organizations such as the Summer Youth Program, National Alliance of Businessmen's Youth Placement Program, etc.

5. Private Employment Agencies

6. Personnel Officers of Business and Industry

7. Cooperative Education Teachers in the Schools. (This can be a two-way effort, as placement can provide information for them as well.)

8. Labor Organizations such as the Central Labor Union Council or the union hiring office, etc.

The above list is not complete and is presented as an example of the type of agencies and groups to be contacted.

The exact form or questionnaire to be used for the collection of this information is left to the discretion of the individuals doing the surveying; however, examples of forms which could be used are found in Appendix F, page 209 and Appendix G, pages 211-217. As this information is being gathered, there exists the possibility that some immediate employment opportunities will be identified. These should be systematically recorded and placement made as soon as possible. An example of a Job Order Form is found in Appendix J, page 224. This same form is used for the recording of all incoming job orders.

Regardless how information is collected, stored, and retrieved, either manually or automated on a cathode ray tube (CRT), the coding of the information should be consistent with all other information. The recommended system to be used is the DOT classification.

Educational Placement Opportunities:

National: Information at this level is found in several national publications dealing with the identification and description of institutions of higher learning. Two such publications, the College Blue Book and Lovejoy's Directory of Colleges and Universities, are specifically recommended because of the scope of information contained therein. This information can be supplemented with college catalogues, brochures, and, in many instances, first-hand information provided during visitations by college representatives. Obtaining this type of printed information can be accomplished by purchasing these publications or by requesting that the catalogues and brochures be mailed to you on a yearly basis. By simply mailing a postcard, most colleges will provide information about their programs free of charge. Access to this information is provided by keeping it on file in a Career Resource Center or through storage and retrieval by using such as the educational information data bank of a computerized system such as CVIS.

State: One source of information at this level is from the same publications as listed in the above paragraph. Additionally, information at this level may be obtained from state apprenticeship councils, and from directories of approved trade and technical schools. This information may often be obtained by mail or telephone contact with the State Board for Vocational Education or the state guidance supervisor (State Department of Education). A telephone call to the local military recruiters will provide both printed, verbal, and A/V information about the many programs offered by the military. (Note: the military should not be overlooked as an excellent source of training.) Other sources of educational opportunities are institutional visitation days, college nights, and workshops for the staff and/or students. This information is made available by being kept on file in a Career Resource Center or in an automated retrieval system if one is available.

Local: In addition to all the sources mentioned above, educational placement opportunities are determined by contacting agencies such as continuing and adult education and street academies. Other sources to be contacted are: local apprentice programs, on-the-job training programs, and area vocational centers. Information about these programs is best obtained by telephone or personal contact. Personal contact with the cooperative education teachers will, many times, result in presentations being made to underclass high school students, thereby making them aware of the possibility of receiving occupational training while still in high school.

Special Purposes Placement Opportunities:

National: Since placement, at this level, usually is the result of a referral by a state or local agency (other than the school), it is not recommended that an assessment of national agencies be made by a local school placement staff.

State and Local: Assessment of special-purpose placement opportunities, at these two levels, is best accomplished by obtaining directories compiled and published by state, county, and municipal governmental agencies. These directories usually identify the special purposes agencies by: the persons served, eligibility requirements, costs, location, and contact persons, etc. If additional information about an agency is desired, a form or questionnaire, such as the one in Appendix M on page 231, can be used. The resulting information can then be added to that which already exists.

In order to safeguard the confidentiality of data relating to special service referral, it is suggested that access to such data be controlled by the Pupil Personnel Office. Also, it is important that a special effort be made to insure the proper use of the information by designated or qualified school personnel. This can be achieved by the use of a "keyed" manual or automated retrieval system.

A continuing process of analysis and evaluation of this assessment data must constantly be conducted in order to make sure it is current and being used most effectively. Therefore, provisions must be made for a continuous review of information about job and training opportunities currently offered and special services currently accepting the youth in their programs. The stored data must then be updated or changed according to the findings of this review process.

DEFINING THE CHARACTER OF THE LOCAL PLACEMENT PROGRAM

The Placement Center

The primary purpose of this section is to provide a conceptualization of the interfacing of the various components within an operational unit - The Placement Center. In addition, this section delineates the type of activities which are the responsibility of such a Center and the potential difficulties inherent in the satisfaction of these responsibilities. It is hoped that the general concepts and guidelines presented here will be of assistance to any school district (or other unit) seeking to establish a Placement Center within its particular jurisdiction.

The achievement of meaningful placement for an exiting student from a secondary system depends primarily on how well-prepared that student is in terms of understanding his or her abilities and potential, and the awareness the student has of the many alternative ways through which those abilities and potential may be applied in the functioning world. The CCEM attempts to develop both the student's understanding of himself and his or her awareness of the possible career alternative available through a coordinated program of educational courses and work related to other extracurricula experiences. The educational component of the CCEM could be implemented as early as kindergarten, while the work experience component would probably best be implemented at the secondary level, depending on individual student needs.

The educational and work-related experiences which could be provided to any particular student can be identified through the use of the Career Path Matrix (CPM). The CPM provides a format through which specific career direction may be analyzed in terms of necessary or supportive educational and experiential activities. In brief, the CPM identifies course requirements and other experience which could be expected to lead to successful career development in a number of fields. (The number of fields which could be so analyzed is limited only by the capacity of the implementing system to identify, gather, record, analyze, and retrieve pertinent data.)

Figure 1 on page 92 presents the macro conceptualization, while Figure 2 on page 92 presents an approach through which the specific components of a subject area might be analyzed. Each component and sub-component has a set of performance objectives related to it which, when satisfied, will indicate the student's mastery or accomplishment level relevant to that activity or experience. Properly used, the CPM offers guidelines to alternative career paths which could take advantage of the student's existing state of growth and development.

The role of counseling becomes critical in attempting to offer alternative courses of action to students and in helping them make at least tentative career plans. Through counseling, effective direction can be given to the type of experiences (both educational and extracurricula) the student might choose. Some students receive such counseling from parents and other adults. Many students rely on the counseling of peers, who are usually in no better position to give advice than those requesting it. The majority of students must rely on the counseling services provided by the educational system. Unfortunately, such counseling has generally been inadequate because of the excessive case load placed on counselors (as high as 600 students to one counselor) and because such counselors rarely have current information on the educational and employment opportunities within the community.

Figure 1

GOAL & SUBJECT MATRIX

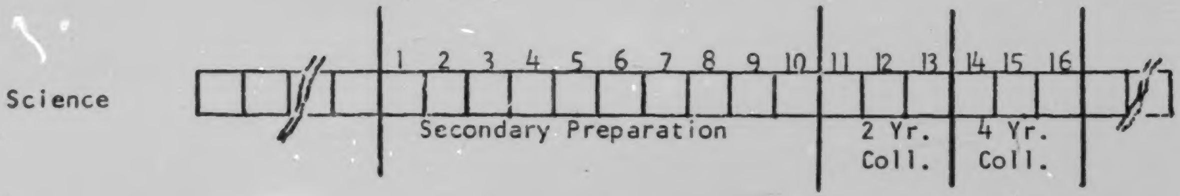
Student Goals	Course and Other Experiential Requirements				
	Math	English	Science	Metal Work	Other Subjects
Artist					
Doctor					
Plumber					
Secretary					
Accountant					
Nurse					
Heavy Equipment Operator					

* * *

Figure 2

REQUIREMENTS FOR SUBJECT AREA X AS RELATED TO STUDENT GOAL Y

Performance Objectives



The Placement Center conceptualization presented in this section eliminates the inadequacies of random and uncoordinated placement systems and moves toward the establishment of a coordinated, personalized approach that develops the human resources and potential possessed by the students in our educational system.

The Placement Center is the catalyst which brings together the attributes and functions of both the "Student Characteristics" and "Occupational Character of Community" section of this report into an operational entity designed to accomplish the goals of the CCEM. The Placement Center, in seeking to accomplish the goals of the CCEM must perform many functions, including:

A. Providing as organization unit within which and through which the goals and mission of the local district's CCEM can be accomplished.

B. Provide a staff, whether large or small, which can provide assistance in the identification, clarification, and implementation of the system's goals and mission regarding Placement Center activities.

C. Provide a staff, whether large or small, with the specific charge and the necessary skills and abilities for designing, implementing and suggesting revisions to their system's student placement program.

D. Provide a central office to which both students and the community can be directed with questions or requests regarding student placement.

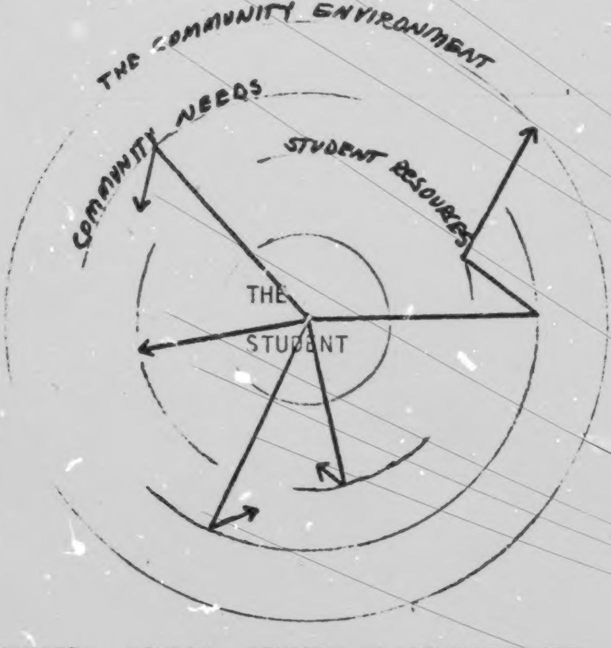
E. Provide, with proper authorization, a coordination link between the system and other public and private agencies concerned with the placement of students in either part-time or full-time employment or other productive or educational situations.

F. Provide a feedback service to the Curriculum Development component of the CCEM regarding current and projected appropriateness of present curriculum offerings within the system with recommendations, where feasible, for adjustments in the nature of such offerings.

The Placement Center Rationale

The Placement Center can best be thought of as a guide providing service and direction to the individual student, assisting him or her to make the transition between the secondary school world and the functioning community environment as smoothly as possible. A conceptual diagram of this function of the Placement Center is shown in Figure 3A and 3B on page 95.

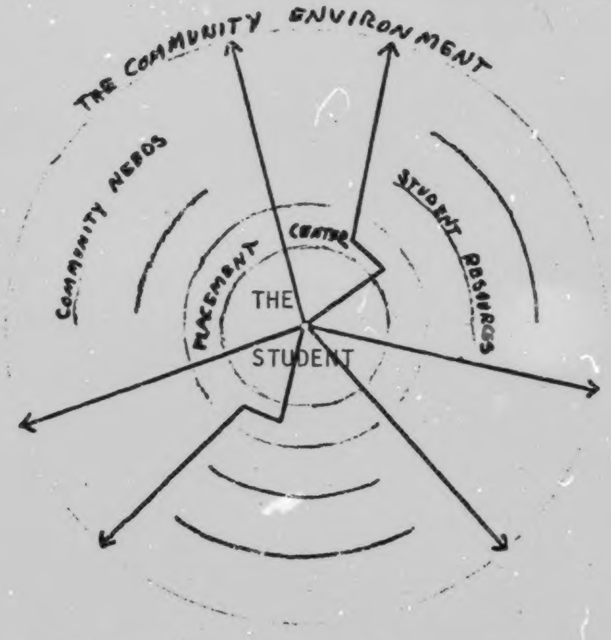
Figure 3a



AN UNPHASED, RANDOM, STUDENT PLACEMENT SYSTEM WHICH RARELY ALLOWS STUDENT RESOURCES TO WORK IN HARMONY WITH COMMUNITY NEEDS FOR THE BENEFIT OF BOTH THE STUDENT AND THE COMMUNITY

* * *

Figure 3b



A WELL PLANNED, COORDINATED, STUDENT PLACEMENT SYSTEM WHICH ALLOWS MOST STUDENTS TO UTILIZE THEIR RESOURCES IN HARMONY WITH THE COMMUNITY NEEDS FOR THE BENEFIT OF BOTH THE STUDENT AND THE COMMUNITY

General Guidelines and Concepts for Establishing A Placement Center

There are three basic areas which will need to be considered in the development of specific policies and procedures for the operationalization of a Placement Center. The specific content of each area will vary according to: (a) the type, size and scope of the system within which the Placement Center will exist, and (b) the particular mission and purpose of the Center.

These three basic areas are: (1) Student Assessment - The size and nature of the student clientele; (2) Community Assessment - The nature and scope of the defined community which the students are expected to enter; and (3) Defined Character of the Placement Program (DCPP) - The organization of the Placement Center and the functions and activities around which its operation should be centered.

Student Assessment

The first area to be considered is Student Assessment. Who shall be the clientele of the Placement Center? This decision regarding who the Placement Center should serve must be made by the system which would create such a Center. However, the operational structure and activity of the Placement Center will depend heavily on the nature of the clientele to be served.

There are many clienteles which could be served by the Placement Center. To define who shall and who shall not be served, at least the following questions must be answered:

Shall the Center serve:

1 All continuing students in the system who are seeking part-time or summer employment? Only such students who are in grades 11 and 12? Or, only such students in grade 12?

2. All exiting students regardless of whether they have been vocationally or academically prepared through their secondary education?

3. Students who have either permanently or temporarily "dropped out" of their secondary educational program and are seeking placement assistance?

4. Students who, once placed, have found the placement unsatisfactory and are requesting additional placement assistance? If these students are served, shall there be a maximum number of either years or placements for which the Placement Center will be obligated?

5. Students who have specifically expressed an intent to leave the system's community but who are still requesting placement?

6. Students bound for post-secondary education? If so, shall the Placement Center be obligated to act as a feeder system to only state institutions, or private ones as well? (This could become a touchy issue in light of declining enrollments in post-secondary education.)

7. and others?

In fairness to the system which will try to answer these questions, it must be kept in mind that to limit their services to fewer than all of the students under questions 1 and 2 would probably bring charges of arbitrary and capricious action Systems which would serve students under questions 3 and 4 might expect charges of "enticing" students to leave school short of graduation and charges of "competing" with free enterprise in the form of proprietary placement organizations. Under questions 5 and 6, the system may be charged with using community funds to place students outside of the area, or with performing services which each post-secondary institution is budgeted to perform under their admissions office.

There are no easy answers to the above questions; however, answers must be found before the work of establishing a Placement Center can progress.

In considering the above questions, the implementing system needs to keep in mind that if the secondary educational and other experiences are to be effective in preparing the student for a career, personal and placement counseling should begin no later than the entry of the student into the seventh grade. This will allow appropriate educational opportunities and work and other experiences to be scheduled as the student progresses through middle and senior high school. Proper guidance and counseling services must be provided during this period to assure combined development of the human potential of each student. The CPM and other such approaches can be of assistance in anticipating and monitoring the student's progress.

The Placement Center staff must consider any early career statements and goals developed during this stage of placement counseling as tentative and not build expectations around them which could generate a sense of failure if they are not accomplished exactly as stated. These early statements and goals should only serve as guidelines toward which the student's remaining secondary level experiences should be directed. The section of this report dealing with a review of the literature indicates that theories of career development clearly consider goal statements made during the high school years as tentative or exploratory (see pages 23-29.) Consequently, the Placement Center staff should anticipate that changes could and probably will occur in these early statements as the student matures and his or her experience base broadens. Contact with the student during these formative years should be relatively frequent in order to monitor the development of career interests and assist in any modification of the career plan.

There are three basic types of placement services which may be required by the various students coming through the system. Each type of service needs to be considered and provided for in the development and establishment of a Placement Center concept. These three types of service are:

1) Educational Placement - This service seeks to place the student in the appropriate secondary, post-secondary, or special educational program(s) designed to assist in the achievement of the student's career goals.

2) Job Placement - This service seeks to place the exiting student directly into full-time, part-time, and summer time employment consistent with his or her career goals, regardless of whether or not the student graduated from a secondary system.

3) Special Services Placement - This service seeks to place the student in the particular special service that can assist him in the achievement of his career goal. Such services provide assistance in the areas of health, welfare, family problems, vocational rehabilitation, occupational training, or work adjustment

There are undoubtedly other similar questions which need to be asked, with either real or potential problems associated with each alternative answer. It is not the intent of this paper to judge the merit of, or to place values on, either the questions or their alternative answers, but rather to raise the issues which must be considered in establishing Student Assessment

Community Assessment

The second area to consider in establishing a Placement Center is Community Assessment. What shall be the community into which the Placement Center should seek to place students? As with Student Assessment, there are many definitions, or components, which could be accepted in order to delineate the situations within which student placements should be considered. Some of the questions which need to be answered are:

1. What will be the occupational settings to which the Center will limit its placements?
2. What is the geographical area within which the Center will limit its placements?
3. Will the Center seek to place students only in those situations where the opportunity for placement has come from an "outside" source, or will the Center actively seek to identify or create placement opportunities for their students?
4. Will the Center, in the case of post-secondary bound students, only provide catalog information to the inquiring student, or will the Center make specific recommendations and actively assist in placing the student with certain institutions? (For example, Centers may wish to use the Computer Vocational Information System which is based upon electronic storage and retrieval of pertinent information on post-secondary programs.)
5. What practices will the Center establish for keeping current on placement opportunities within the community?
6. What practices will the Center establish to assure the integrity

and confidentiality of placement information?

7. What will be the legal liability of the Center, if any, regarding student placement?

8. What policies will the Center establish to avoid discriminatory practices related to race, creed, sex, or age?

9. What shall be the placement objective of the system in terms of the percentage of its students who shall be placed into appropriate positions? (That is, shall the objective be to place 100% of all students, 100% of all students who seek placement, or some other percentage goal?)

10. And others.

It is not expected that these questions will be any easier to answer than those related to Student Assessment, although they must be answered. Whatever the particular nature of the Community Assessment, certain aspects of its growth and development need to be watched closely by the Placement Center staff. The first of these is the present employment pattern for the community. A long list of questions needs to be answered:

- Who are the major employers?
- Is the labor market expanding or contracting?
- What is the 2 to 5 year projection for the community's labor market?
- What is the profile of the types of jobs available? Do they require specific entry-level skills?
- Do the employers prefer to train their employees on the job, or will they accept "externally" trained people?
- What is the attitude of labor leaders and unions toward admitting new members and the training received by these members?
- Are new industries or firms coming into the community that will have specific or unique labor requirements?

- How can information on the employment pattern best be gathered and maintained?

- And others.

Another important factor to consider is the population profile of the community. There are very definite trends across the country regarding in and out migration, and they vary in both direction and intensity depending on the particular geographical area involved. Also, some communities are establishing significant senior citizen populations which require a particular type of support employment to sustain them. Other communities tend to attract younger segments of the population from other areas of the county. These younger immigrators bring with them not only particular support requirements but also increased competition for the existing employment opportunities.

The presence of national and regional firms within the community could result in a disproportionate number of certain types of jobs to be staffed, such as: clerical, assembly, shipping, managerial, accounting, data processing, and similar types.

Whatever the employment profile of the community, it must be watched closely and analyzed in terms of future direction and placement opportunities. This monitoring is an important responsibility of the Placement Center staff. This need not be an excessive burden of the Center, although it will require a staff member with at least working knowledge of labor economics and dynamics. The Center staff will find, generally in larger cities, good support in their monitoring effort from such organizations as Chambers of Commerce, industrial development groups (either private or as departments within the public utilities), local offices of the U.S. Department of Labor, city and county planning offices, and the state departments of labor, commerce, development and/or planning.

School districts, or other units, in their attempts to collect information regarding community employment needs, should keep in mind three potential areas of difficulty related to the collection of such data. The reliability of the information obtained is affected by:

1. The availability of information relating to future plans of employers.
2. The reluctance of employers to give confidential information related to future employment opportunities.
3. The inconsistency with which some employers follow the DOT classifications, thus the necessity of converting the information to the DOT code.

The potential problems which could arise in attempts to collect reliable information regarding community employment opportunities should not prevent Placement Centers from collecting such information. It is still the best available data. The Placement Center staff, being aware of the potential problems with employment information, should therefore take steps to monitor the accuracy of the information by comparing actual with expect opportunities over time.

Information on potential opportunities for post-secondary and special training placements is usually much more reliable because of the more extensive lead time available regarding academic programs. In some cases, placement in post-secondary programs may be confirmed as much as one year in advance. The Placement Center staff should also establish a monitoring system with providers of post-secondary and special training programs, so they may become aware of any actual or contemplated modifications to such programs and better serve their student clientele.

Defined Character of the Placement Program

The third, and most important, of the three basic areas under consideration is that dealing with the Defined Character of the Placement Program. It is through this area that the actual organization of the Placement Center is designed, programs and methodologies established, and systems of interaction with community resource people implemented. Without establishing a definite organizational posture for providing service to students and the community, and acting in a way supportive of such a posture, the Placement Center will probably receive little support from those on whom its effective existence depends.

While the operation of each particular Center will vary according to the uniqueness of its environment, the following discussion of seven specific areas of a placement program might serve as a guideline for the implementation of the concept by School Districts (or other units). These areas are:

1. Organizational Structure
2. Student Input and Monitoring
3. Student Goal Development
4. Community Input
5. Comparison of Student Resources to Community Needs
6. Placement Procedures
7. Evaluation of Placement Activities

Organizational Structure

The organizational structure of the Placement Center should consist of:

1. A director
2. Placement counselors - determined by a ratio of 1 counselor to every 300 students. Such a ratio, based upon a normal academic year of 180 days, will allow approximately 4 hours per year of counselor time for each student, after assuming a 20% time allowance for administrative work of the counselors. (180 class days x 8 hours per day = 1440 hours - 288 hours administrative

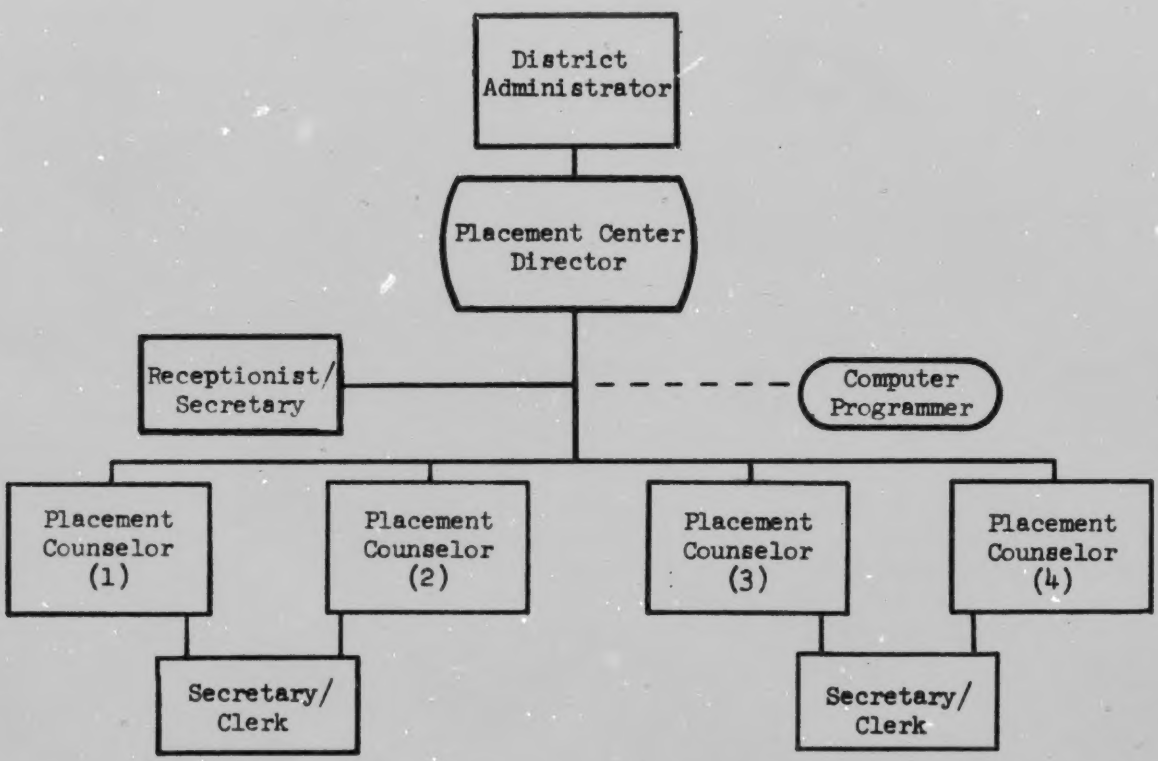
time = 1152 hours available for counseling. 1152 hours ÷ 300 students = 3.8 counseling hours per student.)

3. Secretarial/clerical personnel on a ratio of 1 such person for every 2 counselors.

4 Part-time computer programmer (shared with parent data processing staff).

Figure 4

ORGANIZATIONAL STRUCTURE OF A PLACEMENT CENTER



The Placement Center Director has the primary responsibility of coordinating the activities of the Center in such a way so as to accomplish the goals of the Placement Center. Other responsibilities of the Director would include:

- Establishing an Advisory Council comprised of community resource people (employers, parents, students, administrators, representatives from other placement agencies, curriculum developers, and community leaders). Through this council, liaison between the Center and the community environment is maintained.
- In conjunction with his staff, seek to develop appropriate placement opportunities for students.
- Assist in counseling of students and other counseling duties as situations require.
- and others pertinent to the management of the Placement Center. (Note: The Director, and whatever support staff is necessary, should be on an 11-month contract to assure continuity of services during the summer intermission.)

The Director and other counselors must be trained in guidance and counseling, and be skilled in the area of student goal development. Preferably, the counselors, and especially the Director, should have had training and/or experience in collecting, interpreting, and acting on information related to labor economics and manpower utilization and development. This would include economic-trend analysis, population- and demographic-data analysis, interpretation and anticipation of related job demand and other pertinent factors. They must be capable of identifying, meeting, and working with community resource people and the general public, both to inform such people of the concept of the Center and to develop placement opportunities for the benefit of their student clientele.

Student Input and Monitoring

The Placement Center staff, utilizing a program of counseling interviews, should begin student files on the growth and development of each student as he enters grade 7. Through scheduled interviews, the counselor should monitor and record in the student's file his or her growth and development as he matures and his background of experience and skills broadens. Specific action should be taken to develop student placement files on incoming transfer students as soon as possible upon their entry into the system. The student file should contain information on at least the following:

- Name and address
- Number of brothers and sisters
- Occupation of father and mother
- Family status (separated, etc)
- Previous residences
- Influential adults and their occupations
- Indications of student's mental and physical abilities
- Hobbies and special interests
- Organizational participation (Scouts, 4-H, etc)
- Work experiences
- Unique experiences (trips, workshops, awards, etc)
- Academic and vocational courses

The Center staff should develop a schedule for anticipated placement dates on each student. While this schedule can be expected to change somewhat, especially with regard to part-time placement, it will assist the counselor with the development of the student's career plans.

Both this section dealing with Student Input, and the following section on Student Goal Development, are to be related to the Career Path Matrix (CPM) discussed on pages 90-92 of this paper. The CPM provides a valuable format for assisting in the development of, at first, tentative career goals and the reviewing of alternative paths which could be followed.

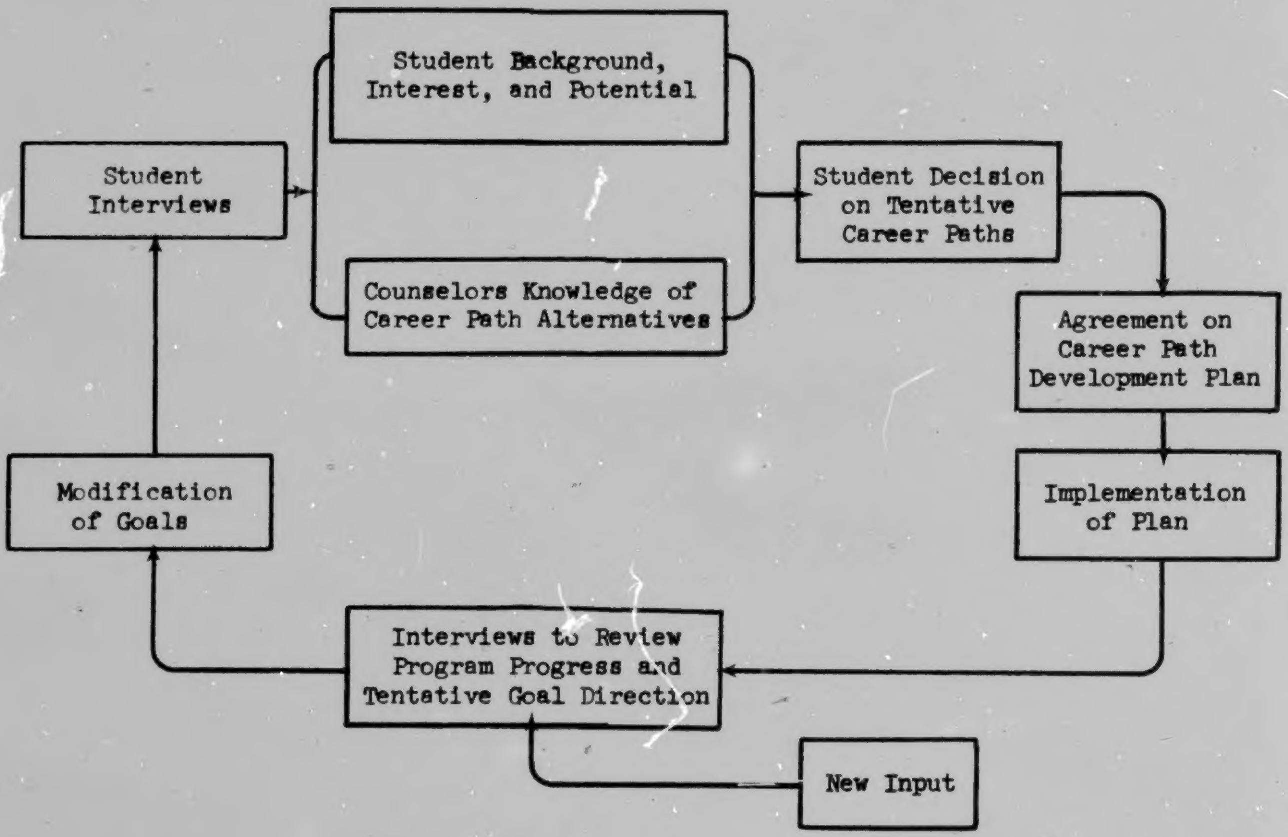
Development of Student Goals

The first and most critical factor to be remembered in the development of student goals is that any goals or objectives set MUST be those to which the student is personally committed and be based on his or her own specific decisions.

The role of the placement counselor is to assist in the development of the student's awareness regarding his or her own potential and to provide information on career alternatives. Once the student has made a decision regarding a career path (albeit a tentative one), the role of the placement counselor is to help the student achieve his goal through an appropriate developmental program. Figure 5 depicts the continuous process to be followed in the development of student goals.

Figure 5

DEVELOPMENT OF STUDENT GOALS


Student Background, Interest, and Potential
Student Interviews
Student Decision on Tentative Career Paths
Counselors Knowledge of Career Path Alternatives
Agreement on Career Path Development Plan
Modification of Goals
Implementation of Plan
Interviews to Review Program Progress and Tentative Goal Direction
New Input

Community Input

The Advisory Council developed by the Director of the Center will serve as a catalyst group to assure community input to the placement program. This group should meet on a formal basis at least bi-monthly and on an informal basis whenever necessary. The Director and his staff should maintain personal contact with each member of the Council in order to keep abreast of current developments which could affect the placement program and to continue to generate placement opportunities for the student clientele.

There are two particular groups of people with whom the Director and staff should have special contact: (1) representatives of post-secondary educational and special training organizations; and (2) representatives of major employers. The first of these groups can be expected to be relatively small. In addition, the lead time available for entry into post-secondary education or special training is such that limited routine contact should be adequate to avoid any adverse impact on the placement program resulting from changes in the plans of these organizations.

However, the situation with employers is much more dynamic and can change direction significantly within days. Consequently, the Center staff should develop a listing of all community employers and develop a sample population from various industries with whom they can maintain contact to monitor developments affecting employment opportunities. Reasonableness would dictate that only employers above a certain size (i.e. 25 employees) or volatile, labor-intensive fields (i.e. construction) be included on the list. The local office of the Department of Employment (DOE) can provide a list of all employers covered by the respective state Employment Security Law, coded by Standard Industrial Classification (SIC).

Care must be taken in requesting this list from DOE as they are under no obligation to comply. In fact, they are required by law to hold confidential information regarding the employment characteristics of participating employers. Provided proper control over the use of such lists is assured, DOE could legally provide a list of all firms with more than 25 employees without releasing information on the specific employment characteristics of any one firm. This information is usually available on a county-wide basis by SIC code. The primary value of this information lies in the development of a community-wide employer mailing list.

The DOE list will have gaps which will need to be filled in through other sources. For example, the DOE list excludes organizations not covered by state Employment Security laws such as federal, state, and local government, non-profit organizations (i.e. hospitals) and self-employed and agricultural workers. Information on these exclusions may be available through the State Department of Commerce, Chambers of Commerce, unions and trade associations, or public utility companies.

To support information obtained through personal contacts, the Center staff should develop survey forms which could be mailed to all employers in the community. The type of information solicited on these forms would include:

- Name and address of firm and branches
- Industry code
- Number of employees (present and historical)
- Types of entry-level positions
- Qualifications of people generally hired
- Special training requirements
- Use of part-time or seasonal help
- Estimated number of expected vacancies or new positions by type (to be coded according to DOT classifications)
- and other information

The Placement Center, with regard to the above and similar information, must establish safeguards to maintain the confidentiality of data.

Comparison of Community Needs to Student Resources

The Placement Center needs to compare the relative "fit" between existing and projected placement opportunities (both educational and employment) and the student resources available. Again, the CPM could be used as a basic analytical format, or another type of matrix could be developed. For example, a matrix might be constructed with available placements along one axis and available student resources along the other.

Three possible outcomes could result from this analysis of "fit": (1) The number of available placement opportunities could be greater than the number of available, interested, and qualified students (usually a condition found in a rapidly expanding community); (2) The number of available placement opportunities could be less than the number of available, interested, and qualified students (usually a condition found in declining or economically depressed communities); or (3) The number of available placement opportunities could equal the number of available, interested, and qualified students (usually this condition is only found in theoretical considerations).

The reaction of the Placement Center to each of these three possible outcomes will, of course, be different. To Outcome 1, the Center can react by providing the widest possible choices of career alternatives to its student clientele. The Center would need to keep close watch on shifts in the migration trend, however, as it will probably begin to show an influx of "outside" resources to fill the community's needs. To Outcome 3 (should it occur), the Center must react by careful counseling geared to the probability that such a stable condition will be short-lived and by maintaining a careful watch on the economic factors which could cause a shift in conditions. Outcome 2 would present the most significant challenge to the Placement Center. There would seem to be at least six possible reaction strategies:

1. Actively work with potential providers to develop placement opportunities for student clientele.
2. Counsel students to defer entering the labor market at this time (even though their career plan may call for it) and to consider broadening their career paths through post-secondary or special training programs - assuming they are qualified for such additional work.
3. Counsel students into positions not related to their career path on a temporary basis until appropriate placement can be found.
4. Modify career programs to allow students a broader range of possible career paths. (This can only be done for students still in the system and fairly far removed from actual placement.)
5. Counsel students to seek placement in other geographical areas where opportunities may be available. (With the growth in the Placement Center concept, it is reasonable to expect the development of regional or national "labor banks" which would attempt to shift available resources to areas where the need is more pressing.)
6. Counsel students into governmental programs (such as Vista, etc.), or the military, for further experience and/or training.

Placement Procedures

The Placement Center should adopt two types of placement procedures: (1) one covering placement of the student into a post-secondary educational or special training program; and (2) one covering the placement of the student into either part-time or full-time employment.

Once a student has been provided with, or otherwise obtains, information regarding post-secondary or special training opportunities, and makes a selection, the student should so notify the Placement Center. Some students may wish to contact the educational or training organization directly; others may wish the Center staff to assist them in such contact. For those students filing directly, the Center must rely on the students to provide information regarding which organizations were contacted and the results obtained. For those students assisted by the Center in their filing, the Center can record the appropriate information regarding the contact for inclusion in the student's placement file. In this latter case, the student will still need to inform the Center of the outcome of the contact and any acceptance of placement.

Two alternative procedures could be used by the Center regarding opportunities for placement into employment. The first of these involves situations where the student secures, or is rejected for, employment without assistance from, or knowledge of, the Center. In such cases, the Center must rely on the student to so inform them. The uncertainty related to the obtaining of this type of information can be lessened if the counselor would ask a specific question during his contact with the student regarding whether or not he (or she) has accepted, or rejected, or been rejected, for any placement opportunities since the last counseling interview. Information related to positive responses can then be included in the student's file.

Information regarding placement opportunities processed by the Center is easier to maintain control over. A card file on all available employment placement opportunities should be maintained in triplicate by the Center. These job inventory cards become the central source of available placements for student and counselors. Students who decide to apply for specific placement are given Copy B of the inventory card. Copy A (the original) remains in the file as a master record. The name of each student who has sought placement on that position is recorded on Copy A. Copy C is placed in the student's placement file, which is then pulled and placed in a "tickler" file to assure proper follow-up.

The student provides the potential employer with Copy B of the job inventory card at his (or her) first interview. Copy B instructs the potential employer to return the card to the Placement Center with notation of date hired and other information. In the event the student is not placed, the potential employer is asked to return the card stating why the student was not hired. Duplicate copies of the job inventory card are prepared for any other student who may wish to apply for the same position. The placement counselor should follow up within a short time on any file for which results of placement interviews have not been received.

Evaluation of Placement Activities

The Director of the Placement Center should establish evaluation procedures through which the effectiveness of the placement program and the appropriateness of the educational and career development activities can be assessed.

The first type of evaluation is internal and attempts to compare the actual results achieved by the Center with the intended results expected. A secondary purpose of this internal evaluation is to determine whether the intended results were adequate in order to properly serve the student clientele. The results of this internal evaluation should form the basis for establishing subsequent goals and objectives for the Center. This, as with all evaluations, should be a continuous process so that any departure from the intended results can be analyzed and corrective action taken as required.

The evaluation of the appropriateness of the educational and career development program is a more complex matter. Evaluation forms should be completed by "drop-outs", graduating seniors, and alumni recording their impressions of their experiences with the career development program. The Senior Planning Questionnaire and the Alumni Follow-Up Survey are both good forms for this purpose. The Alumni form should be circulated one, three, and five years after exiting from the system in order to fully evaluate the career development program.

The results of the various evaluation procedures are important to the staff of the Placement Center so that they may modify the types and amount of experiential activities to which the students are being directed, should such action be called for. However, results of the evaluation which relate to the educational program should be given to the curriculum director for interpretation as to possible impact on existing programs. The Placement Center can only request changes in the academic program. The actual decision to implement changes lies elsewhere.

The Functions of A Placement Center

Much of the preceeding has attempted to set down general guidelines, alternatives and related problems which need to be considered in developing the scope and mission of a Placement Center. As stated earlier, the specific boundaries and operating policies and procedures for any particular Center should only be established after the unique environment within which it will function has been identified and analyzed.

This section of the paper attempts to set forth certain activities which should be carried out by any Placement Center regardless of size or particular environment. While the specific method and procedure for implementing these activities will vary from Center to Center, the underlying rationale for each activity should remain constant.

The establishment of each Placement Center should be preceeded by:

1. The determination of the goals and mission for that particular Placement Center.
2. Within the goals and mission of the Center, the boundaries and scope of operations regarding Student Assessment, Community Assessment and Defined Character of Placement Program must be determined.
3. Establishment of a formal organizational unit with appropriate staff and adequate budget to implement and accomplish the stated mission and goals of the initiating system's concept of student placement.

Once the Placement Center is in existence, several steps must be carried out. Many of these can be carried out simultaneously:

1. Through student assemblies, or other such meetings, inform the student clientele of the establishment of the Center, its mission and goals, and the relationship which needs to be established with the students in order to assist them in finding meaningful educational or employment placement.
2. Through appropriate channels, announce the establishment of the Center to the community's news media and key community resource people (who, hopefully, will have been involved from the initial planning of the concept).
3. Establish and implement programs for interviewing each student who expresses interest in using the Placement Center - and it should not be expected that all students will choose to use the services of the Placement Center - in order to get to know each of them and their

personal plans. Timetables for exiting and other factors could be established at this time for use in preliminary planning. (Such interviewing should be expanded to cover all students in the secondary system as soon as the immediate needs of the graduating seniors and current "drop-outs" are met.)

4. As soon as possible, the Center staff should counsel and work with each student in order to develop tentative and alternative plans for the experiential and educational development of the student. (It must be recognized that such plans will need to change as the student matures and develops a broader base of personal experiences.)

5. Establish and implement programs for developing an inventory of present and potential part-time and full-time employment opportunities for students, and gather information on post-secondary and special educational and training programs available in the community and surrounding area.

6. Establish with each student a developmental program, using CPM or other formats as a guideline, to which he or she agrees and expresses personal commitment. (It is important to the psychological growth of the student that such plans contain short-term time frames based upon achievable objectives so that each student can build on a foundation of successes and current feedback as he or she progresses toward or through placement.)

7. Implement the plan and set up a system for maintaining contact with the student to monitor progress and to modify specific direction, if necessary, during the life of the plan.

8. Establish and implement a system to monitor the changing employment and post-secondary educational environment so that student counseling is always based upon current and best available information.

9. Establish and implement a self-evaluation program in order to analyze the strengths and weaknesses of the Placement Center's operation in terms of student successes in developing and implementing career plans, and the relative successfulness experienced by those actually placed by the Center. (The Senior Planning Questionnaire and the Alumni Follow-Up Survey are both good instruments through which student feedback can be obtained.)

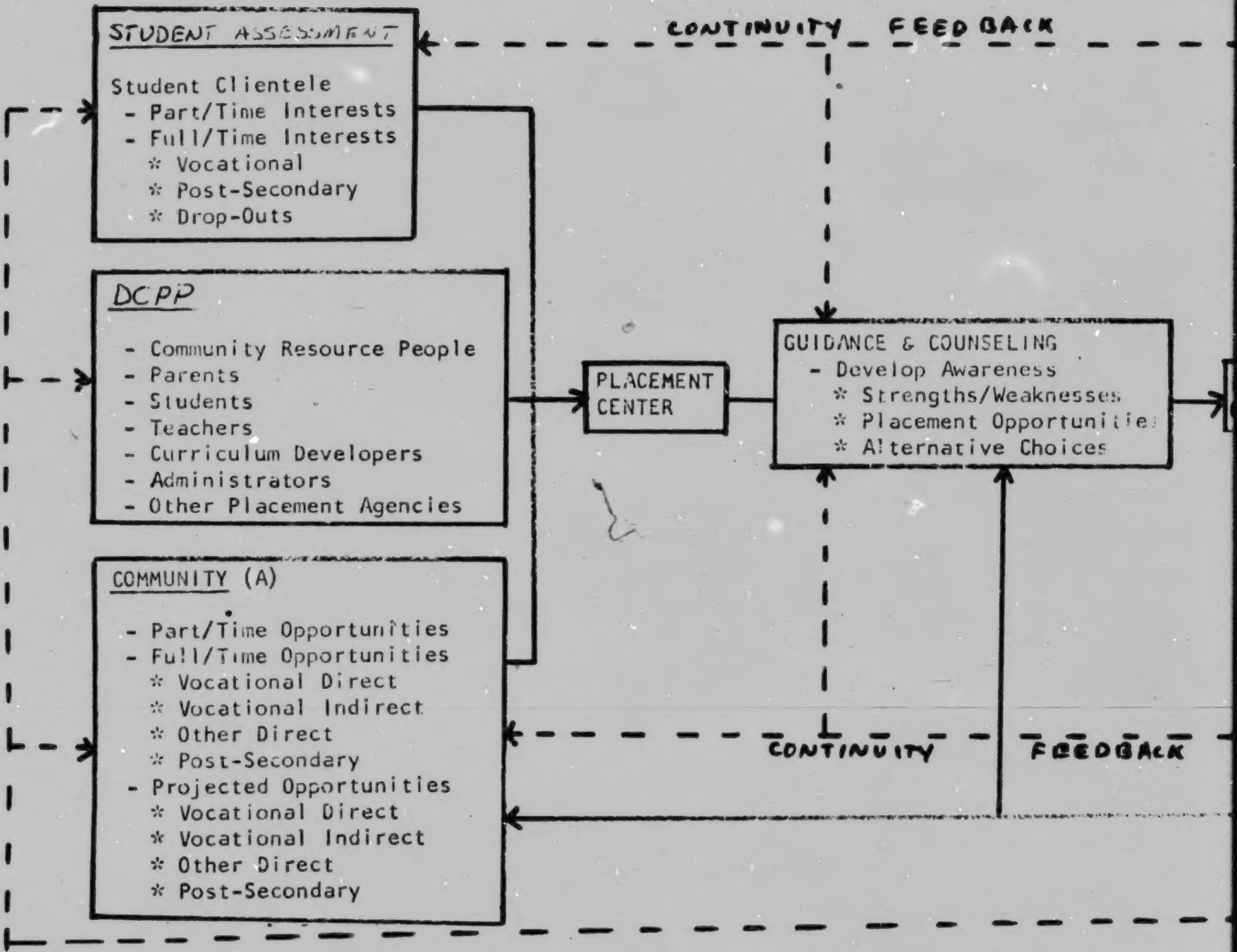
The single most critical function to be performed by the Placement Center is to assure adequate career counseling for each student so as to broaden his or her awareness of their own strengths and weaknesses, the variety of employment and educational choices available to them, and what must be done now, and in the future, to achieve these various alternatives.

A Placement Center Operational Model

In order to simplify the many variables which might impact on the operations of a Placement Center, a model is presented in Figure 6 which attempts to show the various functions and interactions discussed in the foregoing section.

FIGURE 6

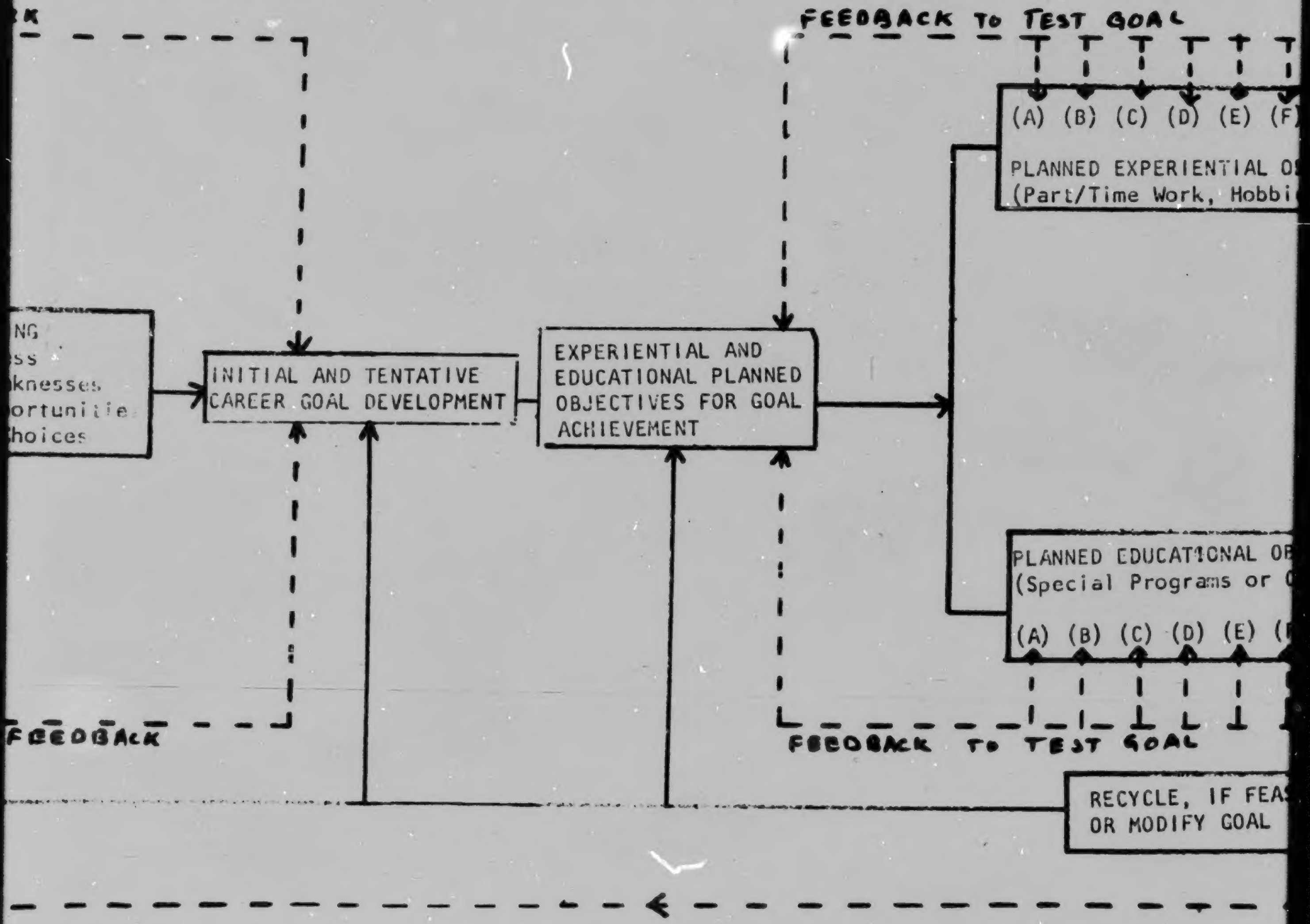
A PLACEMENT CENTER OPERATIONAL



(A) - Direct Opportunities are those which require no additional entry-level e
- Indirect Opportunities are those which require some degree of additional

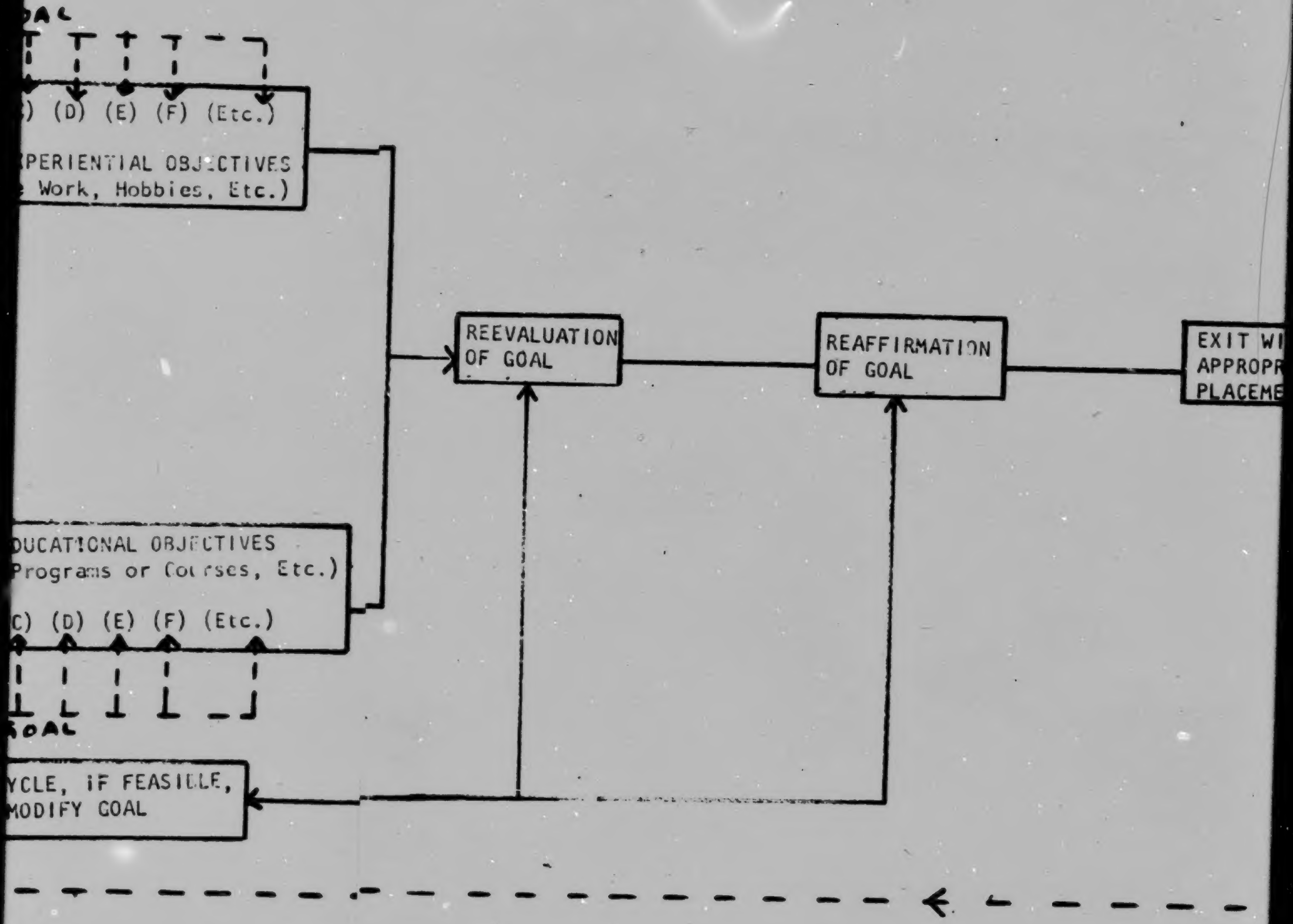
IGURE 6

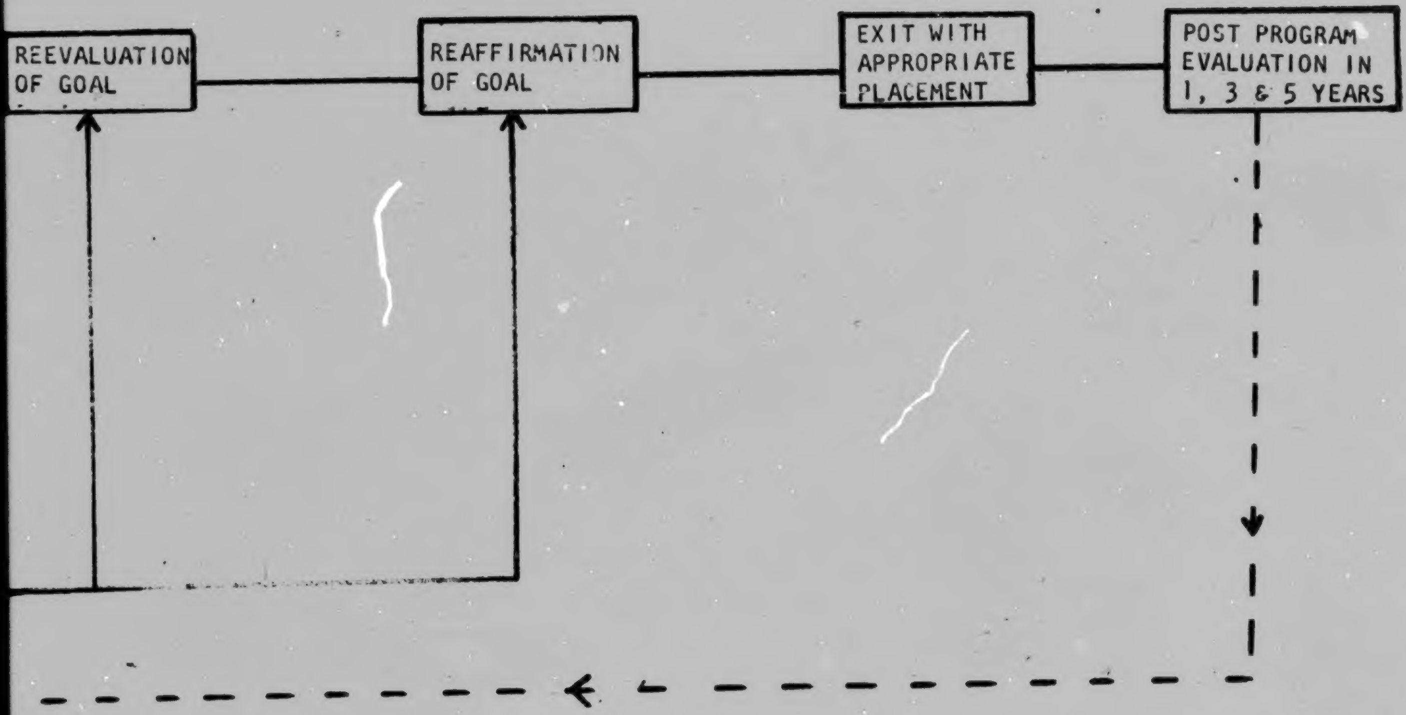
ENTER OPERATIONAL MODEL



l entry-level experience or training.

e of additional experience or training for entry-level positions


OAL
) (D) (E) (F) (Etc.)
PERIENTIAL OBJECTIVES
Work, Hobbies, Etc.)
REEVALUATION OF GOAL
REAFFIRMATION OF GOAL
EXIT WI
APPROPR
PLACEME
UCATIONAL OBJECTIVES
Programs or Courses, Etc.)
C) (D) (E) (F) (Etc.)
OAL
YCLE, IF FEASIBLE,
MODIFY GOAL


REEVALUATION OF GOAL
REAFFIRMATION OF GOAL
EXIT WITH APPROPRIATE PLACEMENT
POST PROGRAM EVALUATION IN 1, 3 & 5 YEARS

THE ROLE OF SUPPORT SYSTEMS IN THE PLACEMENT MODEL

Delivery System

Introduction

The objective of the Placement Information System (PINS) is to provide data-handling systems of both automated and manual design to meet the needs of school placement programs, regardless of their size. The system must be designed to facilitate the quick and efficient retrieval and updating of information about community resources and student characteristics. General constraints for design of the PIN system include: (1) The system must be transportable; (2) The system must be designed in conjunction with the placement model; (3) The information base must be compatible with data systems supporting the other career education components; (4) If automated, the system must be usable in most computer environments; (5) It must be possible to easily identify a student who meets the requirements of a job; (6) It must be possible to easily identify a job meeting the requirements of a student; (7) Information describing post-secondary education must be available; and (9) Information describing special services opportunities must be available.

Different types of delivery systems are considered to support the placement model. The differences in school size, staff, money, community interest, and needs in various school districts, require that consideration be given to more than one system design. Additional factors that must be considered before a school district makes a final decision on one system include: the number of students in the school district, the amount of data about a student that the school elects to carry, the number of students who wish to participate in the placement program, and the speed with which the placement system may operate in the school district. Four levels of data systems that deserve consideration include: (1) manual; (2) key sort; (3) batch; and (4) terminal-based or on-line.

Manual

The school district which makes the decision to adopt a simple, manual system may wish to engage a standard record-keeping system such as a card format. (See Appendix N, page 233.) The more sophisticated, automated system might be needed if a massive number of records are to be searched. The manual system has the student data contained on 5 x 8 cards, showing the student's occupational interests, interests in summer time, full-time, or part-time employment, and the student's special education experiences. This card includes the students occupational goals by DOT classification, or another compatible system. The manual system contains 5 x 8 cards with job order information from companies willing to employ students. The information contained in these files includes starting dates, whether the job is part-time, full-time, or summer time, and whether the job is already under a cooperative educational contract or cooperative educational placement contract. This form provides space to list a complete job description. The form also lists the location of a job that is different from the location of the company offering the job, information on minimum or maximum pay scales, commissions, tips, or overtime, types of benefits, work experiences necessary to obtain the job, and any special physical requirements required to perform the job.

Key Sort

Some school districts will need to have more control of data and greater ability to search files in locating the data. The requirements of these districts may call for a key sort manual data-retrieval system. (See Appendix O on page 238.) A key sort system provides the ability to locate a student or job quickly when the description of the desired student or job involves complex data. The description may contain five or more attributes to be searched. By selecting cards from the file that fit each desired attribute through a sorting technique, the student and job can be located and matched with ease.

A key sort system is set up by identifying, on a 5 x 8 card, all of the attributes which are required for sorting. When the card is filled out and the face of the card has information added to it, each item that is a search attribute is notched on the edge of the card. When all of the cards are put together in a file, a metal rod is inserted along the edge of the cards at the spot where the desired attribute is recorded. All cards which have the attribute will then fall out of the file and all of the cards which do not have the attribute will remain on the metal rod. This type of manual searching technique allows searching through many hundreds of cards, one attribute at a time, and continuing to reduce the size of the file being searched until just a small number of cards remain. When there are no more than ten to thirty cards, it becomes easy to manually identify the student, company, or school that satisfies the selected criteria.

Most key sort systems allow for 100 to 130 individual attributes to be searched. It is recommended that a system layout be developed with alphabetical sort capability, to enable student cards to be put in order by name. The cards must also have aptitudes, major educational experiences that relate directly to work, interests the student has in various occupational areas, the specific type of work he is interested in, and/or the type of education desired. When an employer calls the placement office and asks for a student with a certain background, the counselor can take the student file, use the key sort rod, and search item by item until an individual or small group of students have been identified with the work experience or educational experience the employer requested.

Batch

It is recommended that a large school district, with many students and jobs, adopt an automated system. The exact design of automated systems assumes many forms. However, batch operations are performed in basically the same manner.

Information collected during the day in a counselor's office may be transmitted by internal mail or hand-carried to the computer center for the first step in Batch Processing key punching. The type of installation determines the time involved to complete the process. Key-punched material is scheduled for processing on the computer. After the computer processing is complete and the reports have been printed, the data returns by internal mail or special courier to the requesting counselor or department. This type of system is designed for a one- or two-day turn-around time.

On-Line

The terminal-based, or on-line, system utilizes low speed terminals such as teletypes with keyboard printing mechanisms, or faster cathode ray tube (CRT) display terminals. Regardless of the terminal used, the concept of this system is that the user may make contact directly with the computer at the time the individual is interested in obtaining information. Information about a job or student is entered on a typewriter-type keyboard and transmitted to the computer for an immediate search of the data files to locate students who match the order. On-line systems have the advantage of letting the user know immediately if the search failed to find the item that fit the description. Under these circumstances, the user may modify the search criteria by deleting some items or possibly making them less restrictive and requesting a second search of the files. This process may continue until the counselor feels an adequate representation of the students or job has been retrieved from the computer and has been displayed on the terminal.

The on-line system also allows the counselor to extract individual records of students, to add information which is either a change from previous data carried on the student, or new information about a student or job. Students may also use the computer terminals to search occupational or educational files. Many systems of this type are available. Examples include: the Computerized Vocational Information System (CVIS) in Willowbrook, Illinois; the Decision Making System at the University of Wisconsin, Milwaukee; and the Occupational Information Access System at the University of Oregon. These types of on-line systems operate in what is technically called Multi-Programming Mode. This operation allows for counselor requests from a terminal to be processed at a computer site at the same time that payroll or accounts payable systems are also operating. The advantage of the system is that the counselor or student never has to wait to receive information or update a record.

Larger school districts have this type of computer system. Many school districts in the United States possess large, third-generation computer systems with communications capabilities and a Multi-Programming Operating System.

Characteristics of an Automated PIN System

The characteristics of an automated retrieval system include: a data base, possibility data, and job placement data providing unique capabilities for the support of Career Education Programs.

Data Base: The number of student records anticipated in the larger school districts dictates the use of a large, automated system. Such a district may expect to have from 300 to 1,000 students or more interested in finding a job through the placement office. This number of students, multiplied by the number of data items used as descriptors in a search, bring the figures to the neighborhood of 40,000 to 50,000 descriptive considerations in identifying a student, or small group of students, to fit a particular job. Each one of these student records has within it items of information that are used as search descriptors when wishing to locate a student in order to fill a job position. The Placement Model anticipates upwards of four items of information to be searched at any given time in order to locate the right job for the student.

Transportability: An automated system is transportable. The services needed to set up a placement system could be made available to small school districts, either through local service bureaus or national time-sharing services, at reasonable costs. These types of services can be used to provide on-line, real-time access through remote communications.

Accuracy: A special advantage in having an automated system for locating students for jobs is that the system is able to avoid overlooking any student in the search process of matching a job to a student. An automated system is not affected by counselor bias or deterred from looking at all the records because of the time involved in manual selection. When requested by a counselor, an automated retrieval system locates all of the students that have the backgrounds, experience, training courses, and interests to fit a particular employer's job requirements. This system gives each student an equal chance at being chosen for a particular job.

In-Depth Search: Another advantage to having the PIN system automated is that it is able to carry several job requests by a single student. A student in his senior year would be able to request a full-time job upon graduation, a part-time job on weekends prior to graduation, or a part-time job after graduation.

Current Data: The use of an automated system allows data to be easily changed. If, as a result of an interview, a student has been turned down by an employer, that information can be quickly entered into the computer system. If a student wishes to change his request for a type of job, that can also be entered.

The computer files will be divided into security groupings; each group requiring a different code for access. This coded access will be used for both batch and remote access processing. The security codes can be changed easily and often, as the situation dictates.

The groupings for restricted access of data will be made to correspond to local school policies such as: data requiring parental permission, data with access restricted to certain school staff, open-access data, etc.

Interface with District Information Systems

Student Accounting

The student records used by the placement office are integrated into the main student file. This record is retrievable only by specially identified personnel such as: counselors, administrators, and teachers.

In order to counteract the loss of information which so often occurs in multiple files, single-record updating offers an answer. Whenever student data concerning grades, phone number, address, future desires, test scores, etc., need to be entered into the system, they are entered into the system only once. The student data, once entered from any source within the school, will change the student's one single file.

The single-file concept brings about a needed interrelationship of units. Complete student information profiles would be available to all authorized personnel within the school system.

Student Scheduling

The automated system increases effectiveness in the interaction of curriculum and placement. If a student either fails to complete a unit or fails to sign up for a unit which is necessary for goal accomplishment, the student and his counselor are given warning notices that his current progress may not allow him to obtain his goal.

In the area of course selection, a school district has the ability to monitor a student's progress by terminal objectives. If, during the senior year, a student chooses to switch from one academic goal to another, this system reports, to the student and counselor, the curriculum offerings that are available to the student with a minimum amount of backtracking in his curriculum.

Guidance

The PIN system provides the flexibility of the reorientation of the student career goal and resulting curriculum choices. The system relies upon the career path matrix (CPM), which indicates the curriculum units and associated performance objectives to prepare for specific occupations. The student record shows the satisfactory completion of various performance objectives as the student progresses along the educational path. The CPM and student records are easily matched so new, desired curriculum information may be quickly obtained by the student or counselor.

Technology

Hardware

The dreams of recent years for Virtual Memory, Holographic Memory, inexpensive, efficient cathode ray terminals (CRT), have become the reality of today's computer world. There have been many technological breakthroughs and price reductions in the industry in the past few years.

It is common for school districts to have very large multi-programmed computers that can do all the processing of the administrational departments in the areas of payroll, accounting, etc., and also perform very efficiently in instructional areas for computerized instruction or computer-managed instruction, etc. Because of the technical capabilities of running many jobs at one time, there are now nationwide computer services offering remote communications capabilities to schools of almost any size.

Software

The available computer software used is of a customized nature in order to fit into existing data-processing schemes. An alternative is a generalized, information-management system adaptable to most school district's data processing needs. The overall career education data processing system demands flexible data handling and non-technical personnel generated reporting.

A generalized information-management system is easily learned by all staff members in the school district. The average time for training usually does not exceed two days. This type of system allows the administrators, secretaries, counselors, and teachers to extract information and update records, and to form and generate reports. This type of system also allows the staff members to quickly locate a group of students within the student file who fit the descriptors for a particular job or other requirement.

The Relationship of Support Systems to Student and Community Assessment

After the local school district has made a commitment tc install a career education program, an assessment of both the student population and the community environment to be served will provide the foundation for the design of the placement program.

Student Assessment

The data in the files will be generated from the student planning questionnaire and the pupil data system or school records. The information lists the immediate and long-range occupational goals each student has, and how they plan to achieve a realization of these goals. It is important that the assessment avoids overlap in gathering information, thus providing for a blended retrieval system which obtains what it needs from two (or more) data banks.

If the student wishes additional education and/or training, data pertaining to this will be stored. If a student plans to enter the labor force, data pertaining to the occupational area will be stored. A student may indicate a desire to work and go to school at the same time. Again, provision is made to retain and retrieve this type of data.

An assessment of the student body must be made from the data to determine the design of the placement program.

An assessment of the individual student must be made by analyzing the available data and determining if the goal stated by the student is realistic and what, if anything, must be accomplished to assist the student to achieve his goals.

The assessment data will be facilitated by individual, statistical, summary and exception reports.

Community Assessment

This system will contain all of the information obtained by questionnaire and interview assessments of the community. The data collected by the community assessment will be aggregated and used to assist the local school district to determine the make-up of its placement program. The types of information supplied include: how many jobs, of what type, are expected to be available in a local community at the time the next class graduates and for the next three graduating classes; what types of companies will take exiting students (dropouts and graduating seniors) as employees; what types of companies require vocational training after high school; what types of companies require special program training after high school; what types of companies require higher education at the university level.

The information contained in the community assessment file will include: government employment service information, the names of specific companies and their respective industrial classifications (S.I.C. coded), and the specific jobs within the company classified by DOT titles. Salary ranges for each job and the number of current employees in each job category will also be indicated. Information on the previous numbers of employees will be collected as one variable in making statistical projections of openings for particular industries in future years.

The type of information collected in the community assessment survey will be used for statistical purposes to determine the make-up and direction of the placement program. It will also be used as individual data for future job opportunities files. One category of community assessment will be a list of all the educational and training opportunities available within the community. This information includes vocational centers, technical and trade training centers, apprenticeship and on-the-job training facilities, junior colleges, community colleges, and private and state colleges and universities. The Special Purposes Placement will include information about facilities in the community for physically/mentally handicapped personnel, programs for those in need of financial assistance during training programs, etc. (See Appendix M on page 231.) This data, used for placement purpose, will be contained in the special purposes placement file.

The Local Placement Program

The Local Placement Program requires two types of data files The first is a file with standard information about each student. Special information needed to place a student in a job will be carried here. The second file contains information about placement opportunities for students pertaining to specific job openings, educational and training facilities, and special programs for the preparation of students for placement. This second file provides the following information:

Job Opportunities

For job opportunities, a search system is available in both a manual and automated version. The manual system utilizes a 5 x 8 card stock. (See Appendix O on page 238.) The automated job system provides data necessary to relate a student's occupational desires with actual job openings. The operation, concepts, and computer software require the same specifications as those in the regular student file update and retrieval procedures.

Job opportunities data will be available in the job file throughout the year. However, peak load is expected near the end of the spring semester when the placement staff receives and fills job orders for summer and full-time jobs. During the year, this file will primarily list hard-to-find jobs or part-time "spot" jobs such as babysitting, grass cutting, etc.

The computer software used to extract the jobs will be either a generalized information-management system or a customized, individually-designed program to fit into an existing data-processing operation. The requirements for the software demand the ability to search for the descriptive terms and locate the jobs that fit those descriptor terms located in the file. The actual matching process of students-to-jobs is performed by a properly inserviced placement staff member.

The job opportunities file contains an employer atlas (lists of all local employers) and lists of companies which have indicated a desire to work with the school staff. The file also provides: the record of the company's response to a request for a job opening or assistance in some special occupational training program; the placement staff with the option to extract data, update data from a remote terminal, or have listings printed out for placement survey functions; and lists of the companies which have indicated interest in working with the placement staff even though there are not openings at the present.

Educational Opportunities

The Educational Search System provides information on four-year colleges, two-year colleges, community colleges, technical institutions, etc., and provides the means for a student to locate and study those institutions that meet his educational and/or training needs and interests. The system makes information about individual schools' entrance requirements, tuition, etc., available to the student upon request. (See Appendix L, page 229.)

The Educational Search System allows a student to skim through a massive file of information and locate the specific schools satisfying his personal criteria. The occupational and educational information in the system is comprehensive and complete, which prevents a counselor from repeating the same information over and over again to thousands of students. The student is not hurried in his search nor is he influenced by another individual's biases. The computer is able to keep track of where the student has been, what occupations or educational institutions he has already investigated, and possesses the ability to provide the information to the student any time he wishes to search through the career files.

Special Purposes Placement

The Special Services Search System is capable of locating specific information for the student needing a particular type of special services placement. In a city the size of Denver, there may be as many as 700 special purposes placement organizations. In larger cities such as Los Angeles, there may be 1500 or more of these organizations. Federal, state, and local government agencies offer vocational training programs and financial programs to students, while charitable and philanthropic organizations in local areas provide programs in training or aid for exiting students. Sometimes, the volume of data demands an automated retrieval system. However, it must be pointed out that a manual system, while slower, is capable of handling a large volume of this kind of data.

Support Systems for the Placement Model

The support systems for the Placement Model include the student planning data, the student data file, the follow-up information system, and the career information system.

Student Planning Data

The student planning data system is under review and modification, and no information is available at this time. A separate report is planned.

Student Data File

The operational portion of the Placement Information (PIN) System involves the maintenance and provision of data concerning students and the post-secondary placement they are seeking. To the extent possible, the PIN system accesses student records already maintained by the school district. Much of the information needed about a student is contained in the school district file. Even though the student assessment provides information about students' post-high school work or educational plans, there are certain bits of information that need to be asked about a student for placement purposes. Examples include: (1) Does the student have a driver's license? (2) Is he employed? (3) What type of placement would the student like to have--summer time, full-time, part-time? (4) What are the student's physical capabilities? (5) Can he lift 75 pounds, work in sub-zero settings, etc? and (6) What type of job is the student interested in? As a result, the system must include information about previous work experience: who the student has worked for, the kind of work, how long employed, etc.

Follow-Up Information System

The follow-up system focuses upon a Senior Planning Questionnaire and a series of Follow-Up Questionnaires. The data from the questionnaires can be included in the student data file.

Career Information System - Placement Data

The Career Information System provides information regarding occupations that pertain directly to the Placement Model.

The PIN System may include an automated or manual, occupational information-searching system. The occupational-search system allows a student to begin an investigation without a specific occupation in mind. He asks the computer to locate data regarding an occupation that has certain attributes in which he is interested. This system provides the student direction toward particular occupational clusters. After the student supplies the computer with information about his particular interests and choices, the computer will furnish a printout of occupations that are congruent with these variables. Each occupation contains a short description of the work performed and the educational and experience requirements for working in that occupation. The system also has the ability to provide the student with information about a specific occupation when he enters the title of an occupation of interest to him. Detailed descriptions of these occupations are not available on either the automated or manual system; therefore, the student is referred to the written information available in the Career Resource Center.

Summary

The placement information system, whether it be manual or computerized, for a small school or large, is designed to bring a student together with a job or educational experience that is most suitable. The school district's choice of technology, software, student data, and job data must be made to fit the individual needs of the school and community. The model recommends that certain areas of information and delivery be incorporated in any placement information system to make it a success.

RESEARCH SUGGESTIONS

Innumerable research possibilities can be generated from the Placement Model. This section of the paper will deal with those questions that are considered to be the most important ones to be answered by research. First, research questions relating to the overall effectiveness of the Placement Model will be discussed. Second, research questions about specific areas of the Placement Model will be explored.

The most critical question to be answered by research is whether the measurable effects of the implemented Placement Model are significantly better than effects of having no placement program at all. This research should also address the feasibility of the Placement Model standing alone without the other components of the CCEM.

The second critical area of research can only be undertaken when many or all of the components of the CCEM have been developed. Is it more effective to introduce the entire CCEM at one time into a school system, or should the model be introduced in parts or stages? For example, if the Placement Model section were to be implemented first, would it help better define the needs of students in relation to the Curriculum and Guidance components? Also, what about the feasibility of using only part of the entire model? What goals are accomplished, what problems are encountered, if a piecemeal approach is employed?

The Placement Model attempts to combine meeting the needs of the individual student in making his career decisions with better meeting the demands of society by filling certain occupational voids. Research questions relating to this aspect would be ones like: What impact does implementation of the Placement Model have on meeting the community's employment demands and filling opportunities? What effect does placing emphasis on job market conditions have on students' attitudes toward the career choice process?

Many unquantified variables must be considered by a local district wishing to implement the Placement Model. Through investigation and research, many of these variables could be quantified in a general sense which would simplify the local district's work. For example, what are the maximum-minimum resources needed to implement the model from cost-benefit points of view? What are the general projected costs for various parts of the Placement Model, i.e., computerized information system, community information survey, student characteristics analysis, etc.?

One of the underlying goals of the Placement Model, and of the entire CCEM, is to help students make better - more realistic - career decisions. Any evaluation of the system, thus, must in part consider whether this goal is being achieved. To this point, no reliable or valid way of measuring the realism of an individual's career choice has been developed. This identification of realistic decisions is also important to the process of the Placement Model since the Student Assessment Questionnaire is designed to identify both students who have not made a decision and those who have made a decision that is inconsistent with other data. Research into the problem of assessing realistic decisions could involve approaches like determining, by discriminate function analysis, the probabilities of success in careers given certain factors or development of strategies for statistical determination (i.e., inconsistency analysis) of insincere, unrealistic, student responses.

Many other areas can be researched. Investigation into the ramifications of any particular theoretical underpinning upon a given aspect of the Placement Model can be made (i.e., given Holland's theory of Career Development, what is the best method for training Placement Personnel?) The possibilities are manifold.

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APPENDIX A

KEY TO CHARTS

○ = INPUTS

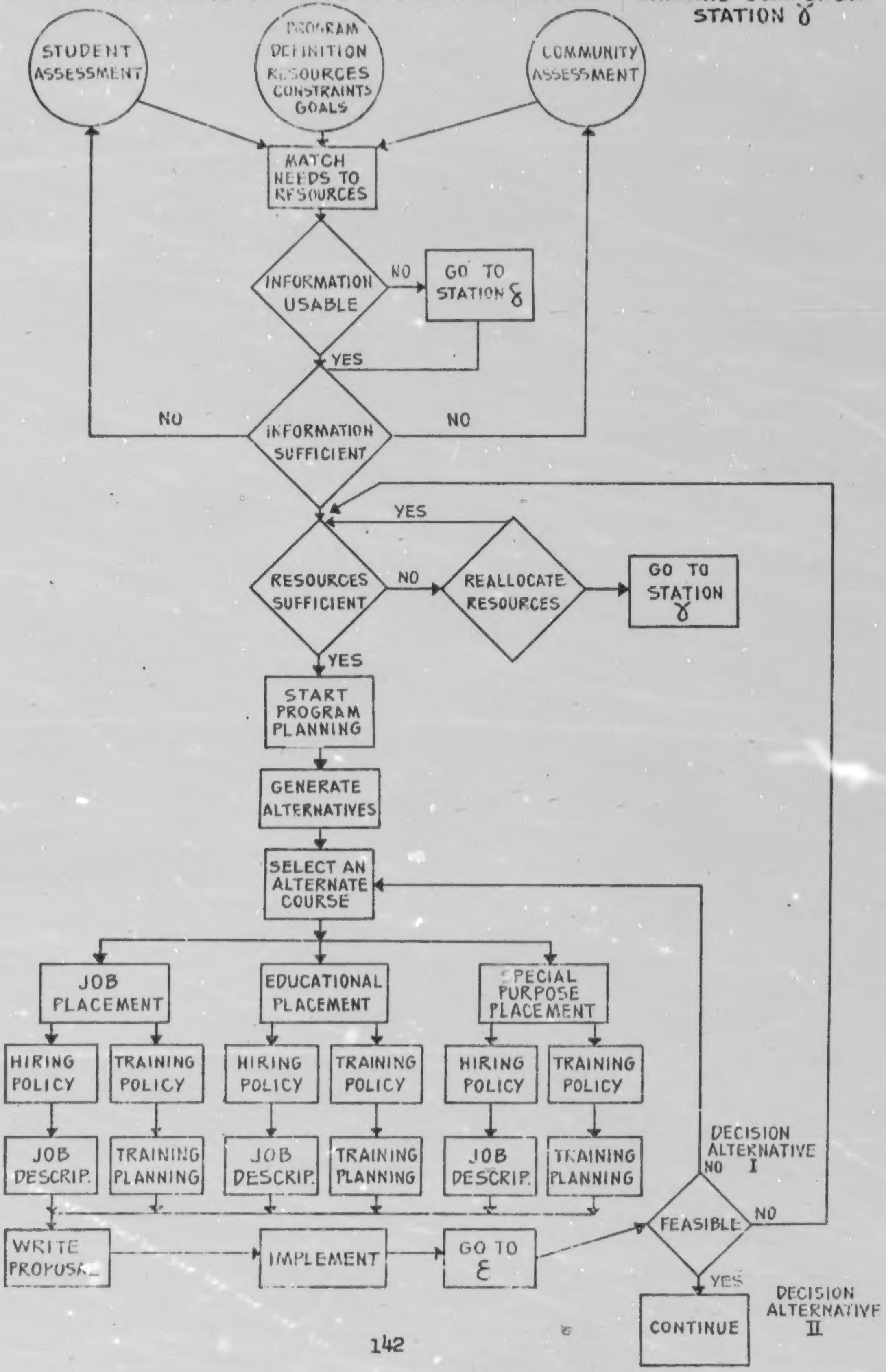
□ = PROCESSES

◇ = DECISION POINTS

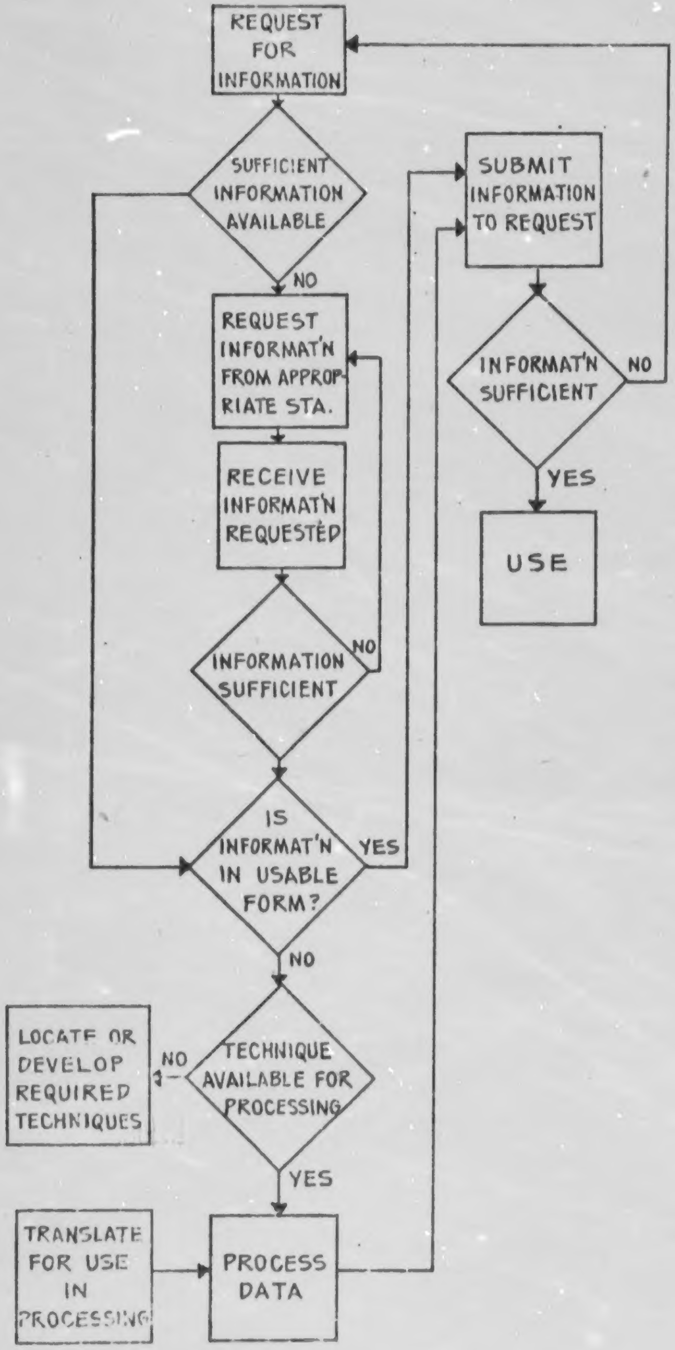
→ = FLOW ARROWS

STATION α	LEA ACTION COMPONENT
STATION σ	STUDENT ASSESSMENT COMPONENT
STATION κ	COMMUNITY ASSESSMENT COMPONENT
STATION γ	PROGRAM DEFINITION COMPONENT
STATION δ	DATA PROCESSING - DATA BANK COMPONENT
STATION β	LOCAL VERSION OF PLACEMENT MODEL - PLANNING
STATION ε	LOCAL VERSION IMPLEMENTATION COMPONENT

LOCAL VERSION OF PLACEMENT MODEL PLANNING COMPONENT STATION γ

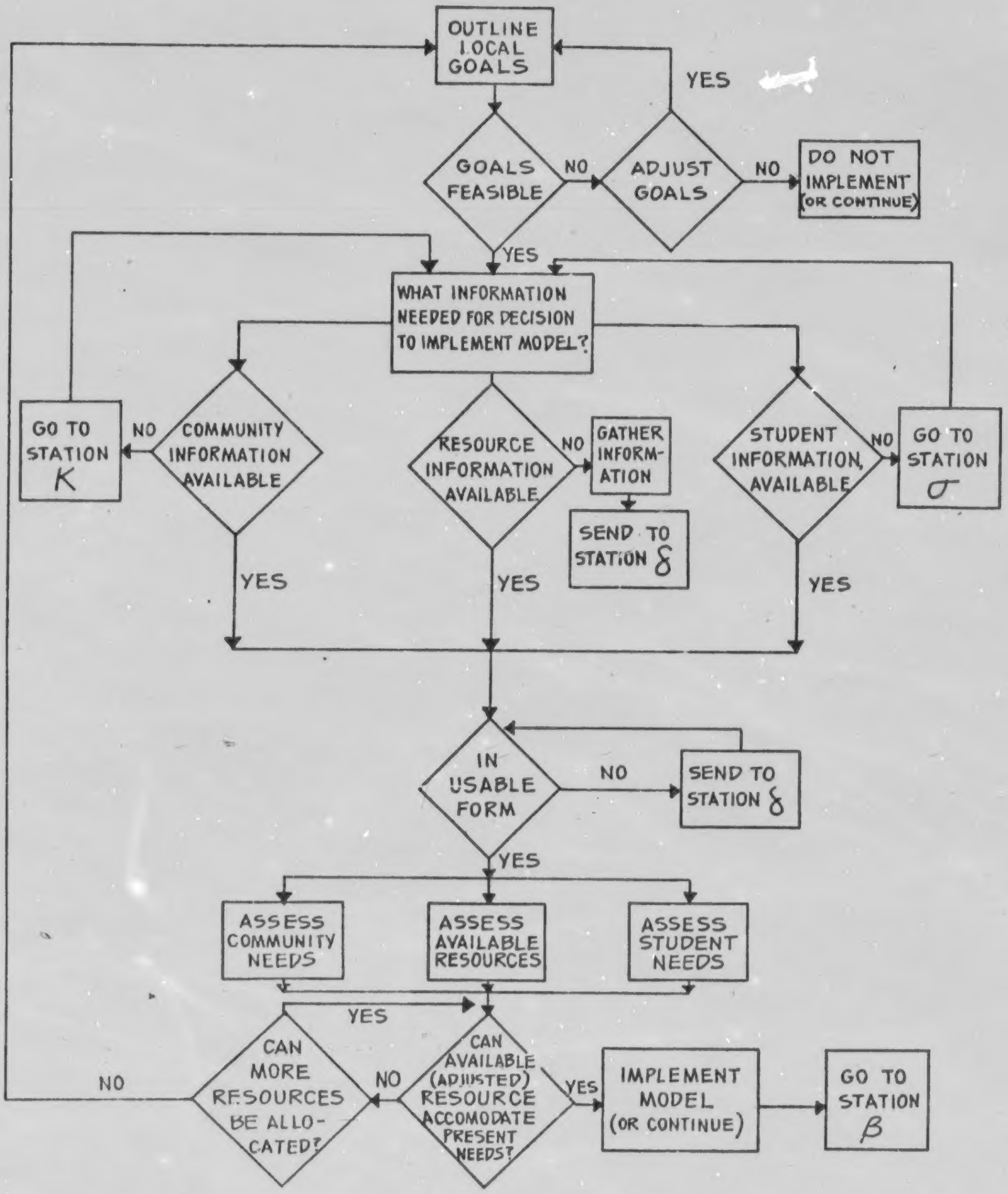


DATA BANK (ALL ORGANIZED INFORMATION INFORMATION PROCESSING) - STATION δ

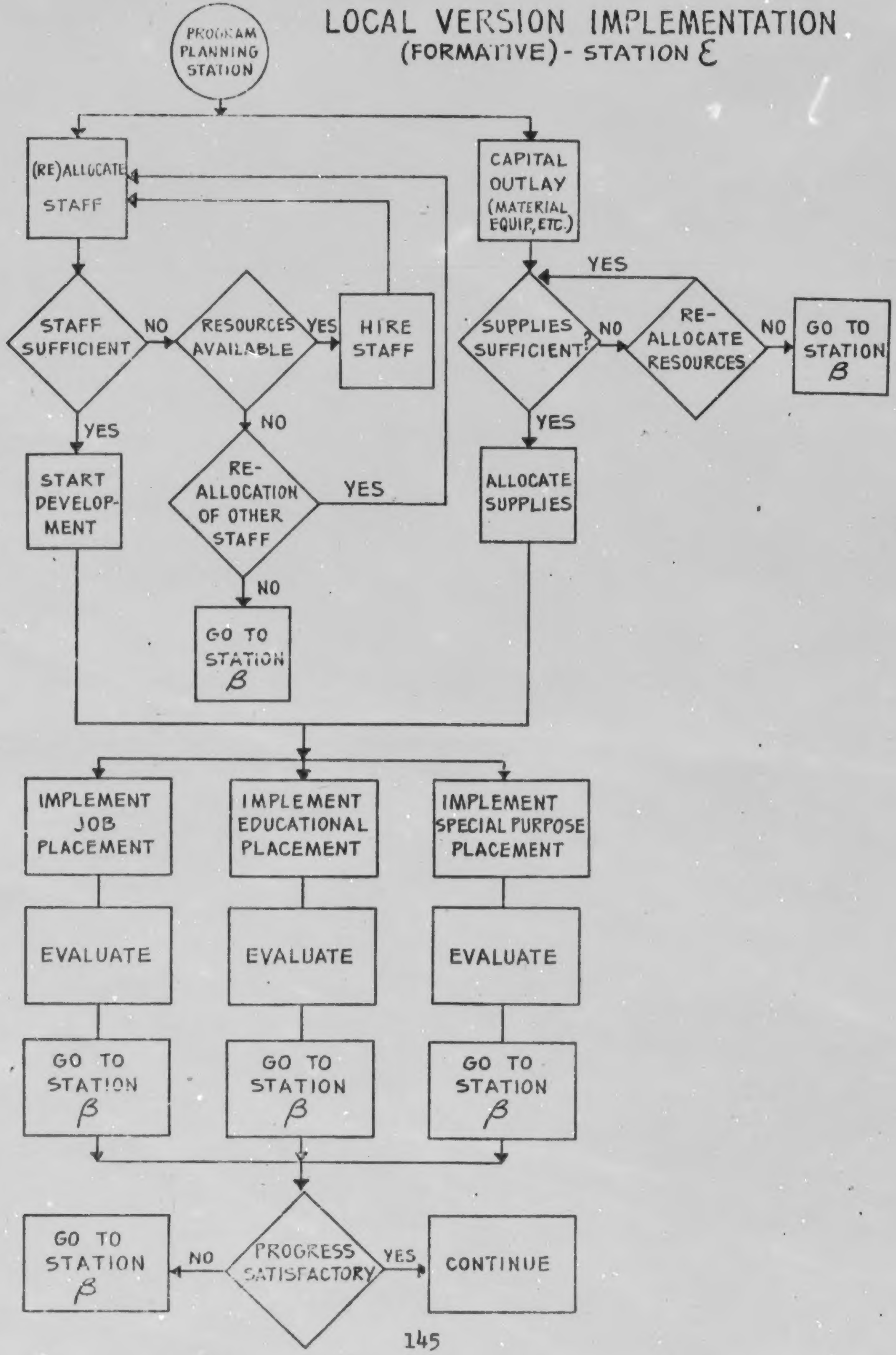


REQUEST FOR INFORMATION
SUFFICIENT INFORMATION AVAILABLE
NO
REQUEST INFORMAT'N FROM APPROPRIATE STA.
RECEIVE INFORMAT'N REQUESTED
INFORMATION SUFFICIENT
NO
IS INFORMAT'N IN USABLE FORM?
YES
NO
TECHNIQUE AVAILABLE FOR PROCESSING
NO
LOCATE OR DEVELOP REQUIRED TECHNIQUES
YES
TRANSLATE FOR USE IN PROCESSING
PROCESS DATA
SUBMIT INFORMATION TO REQUEST
INFORMAT'N SUFFICIENT
NO
YES
USE

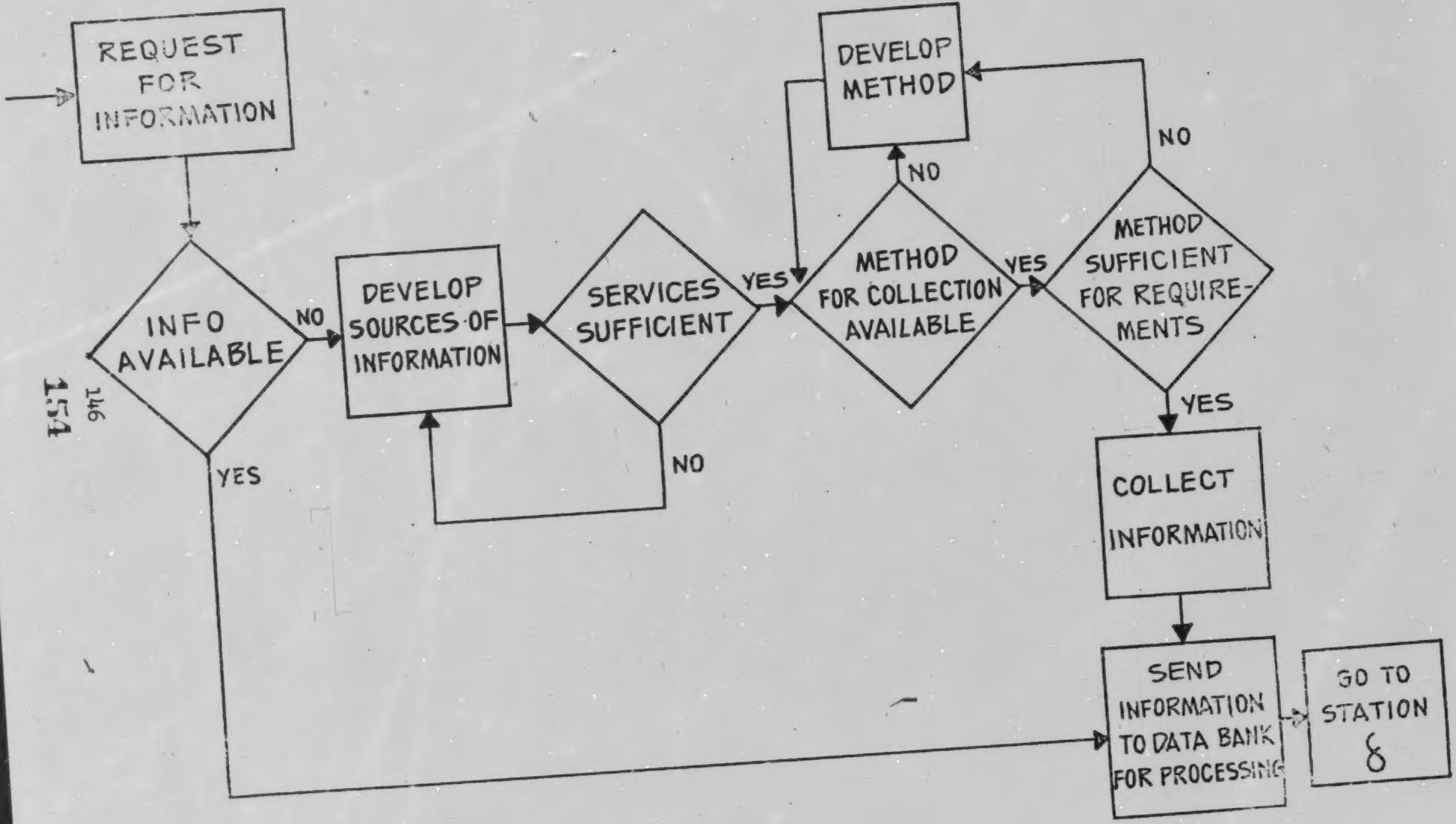
LEA ACTION COMPONENT (FORMATIVE) - STATION α


OUTLINE LOCAL GOALS
GOALS FEASIBLE
NO
ADJUST GOALS
YES
NO
DO NOT IMPLEMENT (OR CONTINUE)
YES
WHAT INFORMATION NEEDED FOR DECISION TO IMPLEMENT MODEL?
GO TO STATION K
NO
COMMUNITY INFORMATION AVAILABLE
RESOURCE INFORMATION AVAILABLE
NO
GATHER INFORMATION
SEND TO STATION δ
STUDENT INFORMATION AVAILABLE
NO
GO TO STATION σ
YES
YES
YES
IN USABLE FORM
NO
SEND TO STATION δ
YES
ASSESS COMMUNITY NEEDS
ASSESS AVAILABLE RESOURCES
ASSESS STUDENT NEEDS
YES
NO
CAN MORE RESOURCES BE ALLOCATED?
NO
CAN AVAILABLE (ADJUSTED) RESOURCE ACCOMODATE PRESENT NEEDS?
YES
IMPLEMENT MODEL (OR CONTINUE)
GO TO STATION β

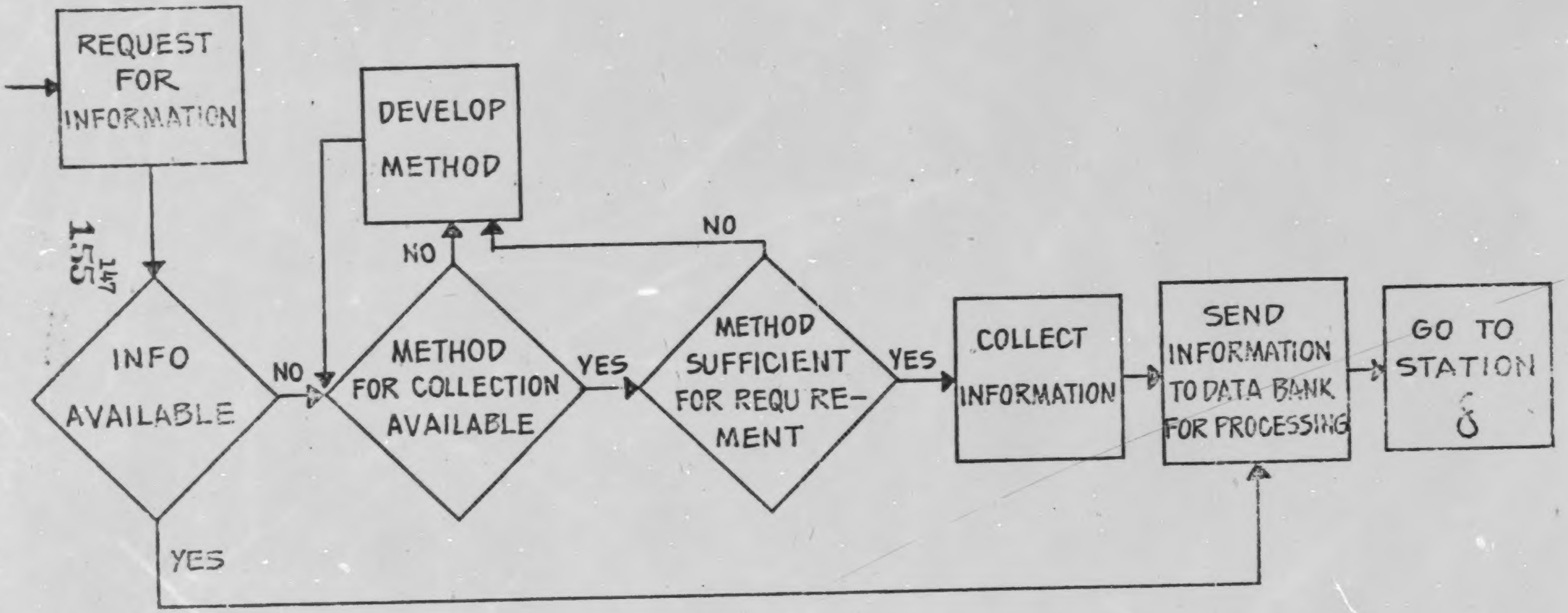
LOCAL VERSION IMPLEMENTATION
(FORMATIVE) - STATION Ɛ



COMMUNITY CHARACTERISTICS
(FORMATIVE) - STATION K


REQUEST FOR INFORMATION
INFO AVAILABLE
NO
YES
DEVELOP SOURCES OF INFORMATION
SERVICES SUFFICIENT
YES
NO
METHOD FOR COLLECTION AVAILABLE
NO
YES
DEVELOP METHOD
METHOD SUFFICIENT FOR REQUIREMENTS
NO
YES
COLLECT INFORMATION
SEND INFORMATION TO DATA BANK FOR PROCESSING
GO TO STATION &

STUDENT CHARACTERISTICS
(FORMATIVE) - STATION σ


REQUEST FOR INFORMATION
INFO AVAILABLE
NO
YES
DEVELOP METHOD
NO
METHOD FOR COLLECTION AVAILABLE
YES
NO
METHOD SUFFICIENT FOR REQU RE-MENT
YES
COLLECT INFORMATION
SEND INFORMATION TO DATA BANK FOR PROCESSING
GO TO STATION δ

APPENDIX B

FIRST DRAFT

Comprehensive Career Education Model

Student Assessment Questionnaire

Developed by-

Career Placement Staff
Jefferson County Public Schools
4001 Reed Street
Wheatridge, Colorado

MAY 1973

NAME______________________________
Last First

SECTION I

Part A:

Have you made a tentative decision about what occupational goals you wish to pursue after you leave high school?

______ YES

______ NO

Part B:

If your answer was "NO" to Part A, Please explain "where you are" in relation to stating occupational goals.

____

____

____

____

____

____

____

____

NAME ______________________________
Last First

Part C:

Item I: If your answer was "YES" to Part A please list, in order of preference, the occupational goal(s) you would like to achieve.

a. ______________________________

b. ______________________________

Item 2: What obstacles do you feel may possibly interfere with your realization of the occupational goal(s) listed in Item I?

____

____

____

Item 3: If your answer was "YES" to Part A please list, in order of preference, the occupational goal(s) you think you will achieve based upon your knowledge of your own abilities, interests, and values, etc.

a. ______________________________

b. ______________________________

Item 4: What obstacles do you feel may possibly interfere with your realization of the occupational goal(s) listed in Item 2?

____

____

____

NAME ________________________________
Last First

Part D:

Listed below are selected examples of occupational information. Referring to the occupational goal(s) you identified in Part C, Item I and Part C, Item 2, place a check mark beside the examples you wish to investigate in more depth.

____ Employment Outlook Locally
____ Employment Outlook Nationally
____ Amount of Education and/or Training
____ Cost of Education and/or Training
____ Working Conditions
____ Fringe Benefits--Vacation, Sick Leave, Hospitalization, etc.
____ Qualifications--Age, Training, Aptitude, License, etc.
____ Union Dues, Association Fees
____ Advancement Possibilities
____ Earnings, Raises
____ Tools or Equipment

Other -- Please list examples of occupational information that are of interest to you but are not listed above.

____

____

____

FIRST DRAFT

NAME ____________________________

Last First

SECTION II

Part A:

Additional education and/or training after leaving high school: (Place a check mark in the blank beside each statement that describes your present plans for education or training after you leave high school).

____ I plan to continue my education on a full-time basis.

____ I plan to continue my education on a part-time basis.

____ I plan to attend a university or four year college.

____ I plan to attend a community or junior college.

____ I plan to attend a trade or technical school.

____ I plan to enter an apprenticeship program.

____ I plan to enter a continuing or adult education program. (GED)

__ I plan to enlist in an Armed Services training program.

____ I have no definite plans at this time but need help to make a decision.

____ I have no plans for additional education and/or training.

Part B:

If your plans include additional education and/or training after leaving high school, do you feel you will need financial aid such as scholarships, grants, or loans to achieve your goal?

____ YES

____ NO

FIRST DRAFT

NAME ______________________________
Last First

Part C:

If you plan to attend a college or university, indicate your first, second, and third choices, by number, in the blanks beside the name of each institution:

___ Adams State College, Alamosa
___ Aims Junior College, Greeley
___ Arapahoe Community College, Littleton
___ Baptist Bible College, Denver
___ Belleview College, Denver
___ Colorado Alpine, USIU, Steamboat Springs
___ Colorado Baptist Junior College, Westminister
___ Colorado College, Colorado Springs
___ Colorado Mountain College, Glenwood Springs
___ Colorado Mountain College, Leadville
___ Colorado School of Mines, Golden
___ Colorado State University, Ft. Collins
___ Colorado Western College, Montrose
___ Colorado Womens College, Denver
___ Community College of Denver, Auraria, Denver
___ Community College of Denver, North, Denver
___ Community College of Denver, Red Rocks, Lakewood
___ Conservative Baptist Theological Seminary, Denver
___ El Paso Community College, Colorado Springs
___ Ft. Lewis College, Durango
___ Iliff School of Theology, Denver
___ Lamar Community College, Lamar
___ Loretto Heights College, Denver
___ Mesa College, Grand Junction
___ Metropolitan State College, Denver
___ Morgan County Community College, Ft. Morgan
___ Nazarene Bible College, Colorado Springs
___ Northeastern Junior College, Sterling
___ Otero Junior College, La Junta
___ Rangely College, Rangely
___ Regis College, Denver
___ Rockmont College, Denver
___ Southern Colorado State College, Pueblo
___ St. Thomas Seminary, Denver
___ Trinidad State Junior College, Trinidad
___ University of Colorado, Boulder
___ University of Colorado, Colorado Springs
___ University of Colorado, Denver
___ University of Denver, Denver
___ University of Northern Colorado, Greeley
___ Western State College, Gunnison
___ Military Service Academies
___ Out of State -- Eastern United States
___ Out of State -- Midwestern United States
___ Out of State -- Southern United States
___ Out of State -- Western United States
___ No selection at this time but need help to make a decision.

FIRST DRAFT

NAME ______________________________
Last First

Part D:

If you plan to attend a trade or technical school indicate your first, second and third choices, if applicable, by writing the name of the school(s) in the blanks below.

First Choice: ______________________________

Second Choice: ______________________________

Third Choice: ______________________________

____ I have no definite plan at this time but need help to make a decision.

FIRST DRAFT

NAME___________________________
Last First

SECTION III

Part A:

Employment plans after leaving high school: (Place a check mark in the blank beside each statement that describes your present plans for employment after you leave high school).

___ I plan to look for a full-time job. (At least 30 hours a week.)

___ I have a full-time job lined up. (At least 30 hours a week.)

___ I plan to look for a part-time job. (Less than 30 hours a week.)

___ I have a part-time job lined up. (Less than 30 hours a week.)

___ I plan to look for a summer job.

___ I have a summer job lined up.

___ I plan to enlist in the Armed Services.

___ I have no definite work plans at this time.

FIRST DRAFT

NAME______________________________
Last First

Part B:

Location For Employment. (Place a check mark beside each location that describes where you are most interested in being employed, and indicate by "P" for Part-Time, "S" for Summer or "F" for Full-Time, what type job you want in the blank after each identified location.)

___ Jefferson County ___

___ Metropolitan Denver ___

___ Eastern Slope of Colorado ___

___ Western Slope of Colorado ___

___ Anywhere in Colorado ___

___ Out-of-state -- Eastern United States ___

___ Out-of-state -- Midwestern United States ___

___ Out-of-state -- Southern United States ___

___ Out-of-state -- Western United States ___

Other - Please List

___ ______________________________

___ ______________________________

___ ______________________________

FIRST DRAFT

NAME ______________________________
Last First

Part C:

Please list specific jobs you are interested in for full-time employment.

____

____

____

____

Please list specific jobs you are interested in for part-time employment.

____

____

____

____

Please list specific jobs you are interested in for summer-time employment.

____

____

____

____

FIRST DRAFT

NAME______________________________
Last First

SECTION IV

Part A:

If you are currently enrolled in, or plan to enroll in any of the occupational education classes listed below, please indicate which class(es) by listing the letter "C" for classes currently enrolled in and listing the letter "P" for classes you plan to take in the future.

___ Distributive Education I
___ Distributive Education II
___ Office Occupations I
___ Office Occupations II
___ Vocational Auto
___ Vocational Electronics
___ Vocational Welding
*___ Occupational Work Experience

*List specific jobs held while in the OWE Program

____
____
____
____

FIRST DRAFT

NAME______________________________
Last First

Part B:

List below any work experience you have had in the past.

____

____

____

____

____

SUGGESTED CHANGES IN THE STUDENT ASSESSMENT QUESTIONNAIRE

(1) Title changed to:

Student Assessment Questionnaire
Educational and Employment Plans

(2) Section II, Part A, page 153

Add:

_____ I have other plans

_____ I need help to make a decision

(3) Section II, Part C, page 154

Separate last choice to read:

_____ No selection at this time

_____ I need help to make a decision

(4) Section II, Part D, page 155

Separate last choice to read:

_____ I have no definite plan at this time.

_____ I need help to make a decision.

(5) Section III, Part A, page 156

Add:

_____ Other

(6) Section IV, Part A, page 159

List under occupational work experience:

_____ Other

(7) Section IV, Part B, page 160

Add:

...or presently have now.

THE SECTIONS AND PARTS OF THE QUESTIONNAIRE WHERE CONFLICT MOST FREQUENTLY OCCUR

1. Stated goal(s) versus educational plans
2. Stated goal(s) versus employment plans
3. Educational plans versus employment plans
4. Conflict of employment plans in Section II, Parts A, C, and D
5. Conflict of employment plans in Section III, Parts A and B

The conflict analysis must be conducted by a trained placement staff member. In the initial reporting process, the three categories of questionnaires are identified by total number and percentage of the N.

After the procedures listed above have been completed, two categories of questionnaires remain:

(1) Those to which the students responded "Yes" to Section I, Part A; and

(2) Those to which the students responded "No" to this part.

The questionnaires with "No" responses should be referred to the counseling staff for additional counseling. The questionnaires with "stated goals" must be compared with the Student Data File to assist the making of a judgment about the relevancy of the occupational choices.

SAMPLE TABULATION SHEET

STUDENT NAME ______________________
Last First

SECTION I

Part A Y N

Part C Item 1 a ______________ b ______________

Item 3 a ______________ b ______________

Part D

E	E	A	C	W	F	Q	U	A	E	T	Other
1	2	3	4	5	6	7	8	9	10	11	______________

SECTION II

Part A

F	P	4	2	T	A	C	S	H	N
1	2	3	4	5	6	7	8	9	10

Part B Y N

Part C 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

35 36 37 38 39 40 41 42 43 44 45 46 47

Part D 1 ______________ 2 ______________ 3 ______________ H

SECTION III

Part A

F	L	P	L	S	L	S	N
1	2	3	4	5	6	7	8

Part B

J	D	E	W	C	E	M	S	W	Other
1	2	3	4	5	6	7	8	9	
P	P	P	P	P	P	P	P	P	______________
S	S	S	S	S	S	S	S	S	
F	F	F	F	F	F	F	F	F	______________

Part C F ______________ P ______________ S ______________

______________ ______________ ______________

______________ ______________ ______________

______________ ______________ ______________

SECTION IV

Part A

DEI	DEII	OOI	OOII	VA	VE	VW	OWE	______________
C	C	C	C	C	C	C	C	
P	P	P	P	P	P	P	P	______________

Part B ______________ ______________

______________ ______________

APPENDIX C

"TALK-THROUGH" INSTRUCTIONS

Section I:

Part A:

1. Define the term "tentative".

2. Define "occupational goal(s)".

3. Encourage the students to ask questions or discuss what is meant by Part A.

4. For those students whose response was "No" to Part A, instruct them to go on to Part B. For those students whose response was "Yes" to Part A, instruct them to go on to Part C.

Part B:

1. Explain the terminology "where you are" for this question.

2. Explain the reason for this question. (Additional help if desired.)

3. Even though the student responded "No" on Part A, there are other parts of this questionnaire which they might answer.

Part C, Item 1:

1 Explain the term "like" in Item 1 versus "think" in Item 3.

2. Have the students print their occupational goal(s). (If a tabulation process is to be carried out by computer assistance, there is a possibility that these occupational goals would also have to be classified in some numerical form. One example that could be used would be the numbers indicating the second level of the DOT.)

3. Encourage questions and/or discussion about identifying occupational goals.

Part C, Item 2:

1. Explain "obstacles", e.g., training, abilities, cost, etc. (Keep the list of examples general in nature so as to minimize the possibility of influencing responses in this item.)

2. Encourage questions and/or discussion.

Section I, Continued:

Part C, Item 3:

1. Explain the term "think" versus "like" responses in Item 1.
2. Explain the terms "abilities, interests, and values" as related to the possibility of making a compromise between what a person would like to do versus what the person thinks he will do.
3. The student should be encouraged to ask questions or to discuss various points concerning their responses in Item 1 and Item 3.

Part C, Item 4:

1. Explain "obstacles", e.g., training, abilities, cost, etc. (Keep the list of examples general in nature so as to minimize the possibility of influencing responses in this item.)
2. Encourage the students to ask questions or take part in a discussion concerning any of the items in this part.

Part D:

1. Explain the reason for this question. (For counseling purposes, guidance purposes, and the development of a career resource center.)
2. Explain how the student is to fill out this part of the questionnaire.
3. Encourage the students to ask questions, but do not allow a discussion to lead into the location of the sources.

Section II:

Part A:

1. Explain the terms "full-time" versus "part-time" education.

2. Explain to the students that once they have identified whether or not they are going to go to school on a full- or part-time basis, they should identify the type of program in which they will get their training.

3. Emphasize the responses "no plans but need help" versus "no plans".

4. Encourage the students to ask questions or take part in a discussion.

Part B:

1. Define the terms "scholarships, grants, loans".

2. Do not let the discussion on availability of, application for, or qualifications for, take time here.

Part C:

1. This is a list of all colleges in the state of Colorado. Check up to three choices by numerical preference, e.g., 1st, 2nd, or 3rd choice.

2. Explain "out-of-state" choices by location. (It is possible that you would need to have a map that would divide the United States up into the areas referred to here.)

3. Explain the last choice of "need for help".

Part D:

1. If the student knows the name(s) of the trade or technical schools he plans to attend, ask him to write these in.

2. Explain "need for help".

3. Don't let the students get into a discussion of the names of schools. If they don't know the name of the school, have them check the "need for help" response

Section III:

Part A:

1. Review the terms "full-", "part-", and "summer" time employment.
2. Explain the choices "look for" versus "lined up".
3. Explain why the Armed Services choice appears twice. If the students checked this response in Section II, they are NOT TO REPEAT THE RESPONSE IN THIS SECTION.

Part B:

1. Explain why this question is asked.
2. Explain that the blanks preceding the name of the location are for indication of locality.
3. The blanks following the name of the location are for the indication of part-, summer, or full-time placement. (Handle this section with care to avoid confusion.)

Part C:

1 1. Explain that this question is to be used for the identification of particular types of jobs that the student may be seeking.

2. Explain the meaning of "full-, part-, and summer time" jobs.

Section IV:

Part A:

1. Explain that this question is used to determine the amount of preparation both obtained and projected in relation to being placed in pursuit of occupational goals.
2. Explain the difference between "C" and "P".
3. Explain why it is necessary to identify specific jobs for the occupational work experience response if so checked.

Part B:

1. Explain to the student that this question is used to determine the amount of preparation the student has had in relation to pursuit of his occupational goals.
2. Encourage discussion of any of the sections or parts of this questionnaire.

INSTRUCTIONS FOR ADMINISTERING THE STUDENT QUESTIONNAIRE

Facilities

An average-size classroom is sufficient. The administration of this questionnaire is to approximate, as nearly as possible, an individual-interview experience; therefore, the students must be seated to promote informal discussion among the students and the administrator.

Time

The time needed for the completion will usually not exceed 45 minutes.

Staff

One administrator is assigned to each group of fifteen (15) students. This administrator must be familiar with the questionnaire and the instructions involved in giving of the questionnaire. There will be some students who appear to be less than sincere in filling out the questionnaire. The administrator must make note of these individuals, pull their questionnaires, and deal with them in the manner prescribed in the tabulation section. The criteria to be used in pulling questionnaires include: (1) the student who does not appear to be following the instructions; (2) the student who seems to have a negative attitude about filling out the questionnaire; and (3) the student who does not become involved in the discussion or questioning period with the administrator or other students.

Instructions to the Students Filling Out Questionnaire:

There are specific points which must be covered with the students prior to the administration of the questionnaire. The list is divided into two parts: (1) Why the students are to fill out the questionnaire, and (2) how the students are to fill out the questionnaire.

1. Why the students are filling out the questionnaire:
    a. Help in the determination of their projected goals;
    b Help to define a placement program;
    c. Help place the individual once he leaves high school;
    d. Help provide information for use in the guidance program.

2. How the students are to fill out the questionnaire:
    a. Print or write legibly all responses;
    b. Last name and the given first name are to be entered on each page;
    c. Each part of each section to be discussed during the discussion process;
    d. Students are to answer only those questions they wish to;
    e. That there are not wrong answers is to be emphasized.

APPENDIX D

Employer Survey

Mesa Chamber of Comm
DRAWER C • PHONE 969-1307
Mesa • Arizona 85201

February 29, 1972

Dear Employer:

The Center for Career Development of the Mesa Public Schools is actively engaged in developing a new career training program. In order that they can realistically relate the training experiences provided the student to the real-life occupational demands, it is necessary that they gain an insight into the world of work in Mesa.

The enclosed survey is a portion of their attempt to sample the employers in Mesa to get specific information as to the numbers of persons employed in specific occupations and the type of training needed for successful placement. The Chamber wholeheartedly endorses this project and encourages your support.

Please cooperate in this endeavor by taking the few minutes necessary to complete the enclosed questionnaire. If you have questions, please contact Dr. Keith Crandell at the Center for Career Development (962-7524). If you have questions about our endorsement of the part we as a Chamber play, please contact me at 969-1307.

Sincerely,

Murrell S Smith

Murrell S. Smith
General Manager

6 MILES EAST OF PHOENIX • ARIZONA'S FINEST CITY • ON U. S. HIGHWAYS 60 . 70 . 80 . 89 . 93

ccd CENTER FOR CAREER DEVELOPMENT MESA PUBLIC SCHOOLS

April 12, 1972

Dear Employer:

The Center for Career Development of Mesa Public Schools is conducting a mail-out Employer Need Survey for the community of Mesa. The primary purpose is to obtain feedback from all employers concerning their employment patterns, occupational make-up, current job openings, needs for new workers in the future, and training opportunities that may be available. This information will be used to aid the Mesa Public Schools in their career training program.

A self-addressed, stamped envelope is enclosed. When you complete your questionnaire, please return it by mail as soon as possible. The information obtained will be kept in strict confidence.

Your response to these questions will give you an added stake in the future development of Mesa and in the future of our children.

Sincerely,

A. Keith Crandell

A. Keith Crandell, Ed.D.
Associate Director

AKC:jc

Enclosures

P.S. Please complete this survey at your earliest convenience.

161 EAST FIRST STREET MESA, ARIZONA 85201 / PHONE (602) 962-7522

CENTER FOR CAREER DEVELOPMENT
MESA PUBLIC SCHOOLS

EMPLOYER-NEED SURVEY

Please print name and position of person to be addressed if questions arise regarding this survey.

Name________________________
Business_____________________
Position_____________________
Phone_______________________

NOTE; ALL ITEMS PERTAIN TO MESA, ARIZONA, ONLY; AND ALL ANSWERS WILL BE KEPT STRICTLY CONFIDENTIAL. ANY ANSWERS OR COMMENTS MADE WILL NOT PLACE ANY OBLIGATION ON YOUR FIRM. THIS IS FOR GENERAL INFORMATION ONLY.

TOTAL NUMBER OF EMPLOYEES

a. Number of full-time employees (35 hours/week or more) ____________________
b. Number of part-time employees (less than 35 hours/week) ____________________

SEASONAL EMPLOYEES (Christmas, tourism, crops, etc.) YES ☐ NO ☐

a. If "yes" please indicate in the spaces provided the numbers(s) employed in each appropriate time period (i.e., 12 Jan. - March)

____ Jan. - March ____ Sept. - Nov.
____ April - May ____ Chrismas Season
____ June - August ____ Other (specify below

FROM ______________ TO __________ NO.______
FROM ______________ TO __________ NO.______

ESTIMATED TOTAL EMPLOYMENT IN (not including seasonal employees)

1973_________
1975_________
1977_________

TOTAL NUMBER OF NEW EMPLOYEES HIRED IN THE LAST CALENDAR YEAR (1971) ____________________

a. Number of new employees that filled new positions created ____________________
b. Number of new employees that filled vacated positions ____________________
c. Number of new employees without prior experience other than public school training ____________________

TOTAL NUMBER OF EMPLOYEES CHANGED TO NEW JOBS OR POSITIONS WITHIN

6. WHEN YOU HAVE A JOB OPENING(S), WHICH OF THE FOLLOWING SOURCES DO YOU USE TO HIRE WORKERS? (Mark the boxes which are most appropriate for each item--a. through g.)

	Often	Sometimes	Never
a. State Employment Service	☐	☐	☐
b. Private Employment Agencies	☐	☐	☐
c. Advertising and Want Ads	☐	☐	☐
d. Friends and Relatives	☐	☐	☐
e. Direct Company Application (walk-ins)	☐	☐	☐
f. School Cooperative Programs (DE, COE, etc.)	☐	☐	☐
g. Other (Please describe ______________________)	☐	☐	☐

7. WOULD HIGH SCHOOL CAREER TRAINING PROGRAMS BE ATTRACTIVE TO YOU IN OBTAINING ADDITIONAL QUALIFIED EMPLOYEES? . . . . . YES ☐ NO ☐

a. If above answer is "no," please identify changes/additions needed to make high-school-trained personnel an attractive source of qualified employees . . . . ______________________

8. WOULD YOU BE WILLING TO PERMIT PUBLIC SCHOOL STUDENTS TO VISIT YOUR ORGANIZATION OR PLACE OF BUSINESS? . . . . YES ☐ NO ☐

9. WOULD YOU CONSIDER PERMITTING A STUDENT(S) TO INDIVIDUALLY ENTER YOUR FIRM TO OBSERVE A PERSON(S) WORKING IN ORDER TO GET A FULL UNDERSTANDING OF THE JOB, WORKING CONDITIONS, SKILLS, ETC? . . . . YES ☐ NO ☐

10. WOULD YOU CONSIDER PERMITTING A QUALIFIED SENIOR HIGH STUDENT TO ENTER YOUR PLACE OF BUSINESS OR AREA OF ACTIVITY AS A VOLUNTEER WORKER IN ORDER TO GET THE EXPERIENCE IN AN OCCUPATION? YES ☐ NO ☐

YES ☐ NO ☐

11. WOULD YOU BE WILLING TO HAVE YOURSELF OR AN EMPLOYEE VISIT A CLASS(ES) IN A PUBLIC SCHOOL TO EXPLAIN YOUR OCCUPATION? . . . YES ☐ NO ☐

ARE THERE AREAS OF TRAINING EXPERIENCES NOT CURRENTLY IN THE PROGRAM THAT YOU FEEL THE PUBLIC SCHOOLS SHOULD PROVIDE? ______________________

a. If answer is "yes," please explain . . . . ______________________

CCUPATIONAL MPLOYMENT AND JOB OPENING INFORMATION

OCCUPATIONS IN YOUR FIRM*	B. NO. PRESENTLY EMPLOYED*		C. JOB OPENING INFORMATION*			D. TRAINING*					
Job Titles e list each different occupation in your or agency. Add descriptive words, classes, rades that will clarify the nature of the job.	Number Total number of persons presently employed in each occupation listed.		CURRENT JOB OPENINGS No. of those jobs in your firm that are unoccupied or ready to fill immediately.		Anticipated Job Openings Job openings expected in the next 12 months for which employees will be actively sought.	Check major source or type of training where employees acquired skills needed for each job listed in column A.					
	TOTAL	FEMALE	TOTAL	Jobs unfilled 1 month or longer.		OJT or Apprenticeship	High School	Trade Technical School	Jr. College	College	Othe
MPLE: Clerk - Typist	3	3	1	0	2		X				

* REFER TO MORE DETAILED INSTRUCTIONS ON BACK OF THIS [illegible] AS NEEDED

PAGE THREE FILL-... GUIDE

COLUMN A - OCCUPATIONS IN YOUR FIRM

Beginning with the first blank line in Column A, list each different job in your firm or agency on a separate line. If you have more than one employee in an identical specific job, use a single line. For example, if you have three Clerk-Typists working for you, the job title "Clerk-Typist" would be entered on a single line as one of the types of jobs that you have in your firm. (See example on line one of survey.)

If you are not sure what to call a particular job, or if a job includes many different duties, please add descriptive words that will help clarify the nature of the job. If you need more space, write on another sheet of paper.

COLUMN B - NUMBER PRESENTLY EMPLOYED

After all the different occupations are listed, go to Column B. List the total number of people you have employed in each different type of job. For example, if you have three Clerk-Typists, the number 3 would be marked in the "TOTAL" column. Next, in the column marked "FEMALE" show how many of your employees in each specific job are women.

COLUMN C - JOB OPENING INFORMATION

Column C is entitled "Job Opening Information." In this column under "Current Job Openings" list the total number of job openings, if any, that you have which are immediately available and for which you are actively trying to find workers from outside your firm. For example, if you have been looking for another Clerk-Typist to fill a job that is currently open, you would mark a "1" in the "TOTAL" column on the line which you had filled in "Clerk-Typist." If you have no openings, make a "O."

Next, list the number of these current job openings, if any, that have remained unfilled for a month or longer. If none, enter a "O."

In the column "Anticipated Job Openings," list the number of job openings (other than current job openings) that you anticipate in the next 12 months for each occupation that you have listed.

NOTE: If you have a current job opening or anticipate a job opening up in the next 12 months for an occupation that is different from any of the occupations that you presently have in your firm, list its job title in the column "Occupations in Your Firm" and fill in the appropriate job opening information.

COLUMN D - TRAINING

In this column, check the major source or type of training where employees acquired (or if a new job that will be opening up where should acquire) skills needed for each job listed in Column A.

"OJT" indicates "on-the-job training." If an employee only needs some college training but not a degree, please indicate the number of years needed in the box.

U HAVE ANY QUESTIONS AS TO HOW TO FILL OUT ANY PART OF THIS SURVEY, OR IF YOU HAVE ANY COMMENTS, ULD APPRECIATE YOUR BRINGING THEM TO OUR ATTENTION. PLEASE TELEPHONE 963-7522 AND ASK FOR

TABLE I

100 Occupations Found in Mesa and Vicinity

Rank	D.O.T.*	Occupation	No. of Employe
1	722	Assembly and repair of communications equip.	525
2	201	Secretaries	475
3	620	Motorized vehicle & engineering equipment mechanics and repairmen	443
4	913	Passenger transportation	357
5	689	Textile occupations	357
6	099	Occupations in education	321
7	311	Waiters, waitresses and related food occupations	292
8	132	Writers and editors	289
9	651	Printing press occupations	287
10	223	Stock clerks and related occupations	274
11	860	Carpenters and related	220
12	209	Stenography, typing, filing, and related	217
13	777	Model makers, pattern makers, mold makers, rel.	203
14	690	Plastics, synthetics, rubber, & leather working	191
15	191	Agents and appraisers	177
16	660	Cabinetmakers	172
17	382	Janitors	157
18	280	Salesmen and salespersons, transportation equip.	149
19	652	Printing machine occupations	136
20	404	Fruit and nut farming occupations	128
21	372	Guards and watchmen, except crossing watchmen	127
22	231	Mail clerks	125
23	211	Cashiers	125
24	168	Inspectors and investigators, managerial and public service	124
25	233	Mail carriers	117
26	323	Maids and housemen, hotels, restaurants, & rel.	116
27	806	Transportation assemblers & related occupations	116
28	210	Bookkeepers	108
29	627	Printing & publishing mechanics & repairmen	97
30	208	Miscellaneous office machine operators	94
31	185	Wholesale & retail trade managers & officials	93
32	905	Truck drivers, heavy	93
33	844	Cement & concrete finishing & related	85
34	263	Salesmen & salespersons, textiles, products & app.	82
35	407	Gardening and grounds keeping	80
36	526	Cooking and baking	79
37	906	Truck drivers, light	76
38	862	Plumbers, gas fitters steam fitters, and related	74
39	637	Utilities service mechanics and repairmen	69
40	258	Salesmen, printing and advertising	69
41	184	Transportation, communication, and utilities industry managers and officials	68
42	290	Sales clerks	68
43	189	Miscellaneous managers and officials	64

Rank	D.O.T.*	Occupations	No. of Employees
44	219	Computing and account recording	61
45	804	Tinsmiths, coppersmiths, & sheet metal workers	61
46	665	Milling and planing	58
47	589	Processing of leather, textiles, & related	58
48	600	Machinists and related	58
49	222	Shipping and receiving clerks	57
50	899	Miscellaneous structural work	57
51	915	Attendants and servicemen, parking lots and service facilities	57
52	861	Brick and stone masons and tile setters	55
53	237	Receptionists and information clerks	55
54	160	Accountants and auditors	54
55	313	Chefs and cooks, large hotels and restaurants	54
56	318	Kitchen workers	54
57	255	Salesmen, transportation services	53
58	332	Hair dressers and cosmetologists	52
59	779	Occupations in fabrication & repair of sand, stone, clay, and glass products	50
60	213	Automatic data-processing-equipment operators	46
61	904	Trailer-truck drivers	41
62	199	Misc. professional, technical, & managerial	41
63	315	Miscellaneous cooks, except domestic	38
64	183	Manufacturing industry managers & officials	37
65	590	Processing products from assorted materials	37
66	920	Packaging	35
67	525	Slaughtering, breaking, curing & related	34
68	299	Merchandising occupations, except salesmen	34
69	216	Computing-machine operators	34
70	975	Stereotypers and related	33
71	289	Salesmen and salespersons, commodities	30
72	821	Assembly, installation, and repair of transmission and distribution lines & circuits	29
73	100	Librarians	29
74	169	Administrative specialists	28
75	250	Salesmen, real estate and insurance	27
76	706	Metal unit assemblers and adjusters	27
77	203	Typists	26
78	820	Assembly, installation, and repair of generators, motor accessories, and related power plant equip	26
79	182	Construction industry managers and officials	26
80	205	Personnel clerks	25
81	163	Sales and distribution management	25
82	824	Assembly, installation, and repair of lighting equipment and building wiring	25
83	235	Telephone operators	24
84	919	Transportation occupations, miscellaneous	24
85	079	Medicine and health	23
86	012	Industrial engineering	23
87	020	Mathematics	23

100 Occupations Found in Mesa and Vicinity (cont'd)

Rank	D.O.T.*	Occupations	No. of Employ
88	075	Registered nurses	22
89	186	Finance, insurance, and real estate managers and officials	22
90	852	Concrete paving occupations	21
91	274	Salesmen and salespersons, housefurnishings	20
92	869	Miscellaneous construction occupations	20
93	845	Transportation equipment painters and related	19
94	166	Personnel and training administration	18
95	807	Bodymen, transportation equipment	18
96	316	Meatcutters, except in slaughtering & packing houses	18
97	271	Salesmen, salespersons, stone, clay & glass	17
98	762	Assembling wood products	17
99	007	Mechanical engineering	17
100	249	Miscellaneous clerical occupations	17

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* This column represents the first three digits of the six-digit D.O.T. (*Dictionary of Occupational Titles*) code. (Category, Division, Group.)

APPENDIX E

Interim Report: OCCUPATIONAL OUTLOOK FOR COLORADO, 1970-1975

Prepared June 1972
State of Colorado
Division of Employment
Research & Analysis Section

INTERIM REPORT ON OCCUPATIONAL OUTLOOK FOR COLORADO, 1970-1975

Explanation of Concepts

It has always been apparent that, for purposes of manpower planning, projections of employment by industry are not sufficiently adequate to meet the information needs of individuals, public administrators, educators, and business. What has been missing is a means whereby industry employment can be translated into its occupational components. Obviously, most job market transactions are expressed in terms of occupation: individuals' career aspirations, vocational and academic course planning, employers' job openings, etc.

It was to partially fulfill these information needs that the Bureau of Labor Statistics, in cooperation with the Manpower Administration, devised the methodology described in Tomorrow's Manpower Needs, Bulletin No. 1606, February 1969, U. S. Department of Labor. In the four volumes and supplements, the national manpower projections, and means of applying them to information available at the state level (see Methodology section of this report) are presented. Generally, the method involves detailed industry employment projections applied to a matrix of staffing patterns by industry from the 1960 census, updated by expected changes at the national level.

Employment in this report, differs from our normal concept of a job count. Here, it refers to the number of people employed in their primary occupation, and the figure represents the average number employed during the course of the reference year, rather than at the seasonal peak or April first, as in the census. The industry and occupational categories correspond to categories in the BLS national matrix and are not directly comparable with either our monthly estimates of work force employment or census published information.

There are two possible causes of a demand for additional workers in any given industry in the long term: first, the creation of new positions with year to year expansion of operations; and, second, the demand for persons to replace employees who have retired, died, or left the industry for any other reason. In the master table at the end of this report, expected demand for additional workers by occupation is presented separately for both change in employment level and replacement.

Finally, a precaution in the use of these estimates is warranted. The projections attempt to relate aggregate demand for labor in these occupational categories. Nothing is said about the expected supply of labor in 1975. Undoubtedly, there will be some occupations with insufficient numbers of qualified individuals to fill the expected demand for their services; physicians and surgeons might be an example. On the other hand, occupations with a rising demand for workers may experience an even faster increase in supply of qualified applicants than can be absorbed; elementary school teachers may be an example of this phenomenon.

A further disclaimer should be noted. The mechanics of this projection process were completed before the detailed results of the 1970 Census of Population became available, and therefore follow a methodology which does not take the census results into account. It is for this reason that the report is considered an interim one. The Bureau of Labor Statistics, Manpower Administration, and an advisory group of States (of which Colorado is a participant) are planning an occupational projection procedure, using the 1970 Census, the Current Population Survey, Occupational Employment

Statistics and industry projections to eventually provide annually updated versions of this report, reflecting to a much greater degree the divergent trends of each of the states from the national average. This report is therefore to be considered the best estimate currently available, but used with the knowledge that many improvements are yet to come. The current timetable calls for projections to 1980 to be produced by 1975.

Discussion of Findings

Table 1 is a display of estimated average employment levels for the years 1960, 1970, and 1975 for industry categories found in the national industry/occupation matrices. The 1975 estimates were forecasted from information available through 1970 and represent extension of long term trends evident at that time. Since this report may influence policy and career decisions, the projections tend more towards being conservative, rather than optimistic, expectations of employment change.

From the table, it is apparent that the greatest increase in employment (97,600 or 80% of total) will occur in the trade, services and public administration sector of the Colorado economy. The other six are characterized by smaller employment bases, slower employment growth, or actual decline. It must be remembered, however, that a large number of workers will be required in almost all sectors to replace those currently employed who will be leaving the work force during this period for retirement, health, family responsibilities and other reasons.

TABLE 1

EMPLOYMENT BY MATRIX INDUSTRY 1960-1975: COLORADO

Industry Title 1/	Annual Averages 1960	1970	1975 2/	Change, 1970-1975 Number	Percent
Agriculture, Forestry, Fisheries	47,000	53,100	50,200	-2,900	-5.5
Mining	16,000	14,500	15,600	1,100	7.6
Contract Construction	47,300	53,900	58,800	4,900	9.1
Manufacturing	91,400	119,800	130,800	11,000	9.2
Durable Goods	52,300	72,700	80,400	7,700	10.6
Nondurable Goods	39,100	47,100	50,400	3,300	7.0
Transportation, Communication & Public Utilities	47,700	57,400	62,300	4,900	8.5
Trade	141,500	194,500	220,400	25,900	13.3
Finance, Insurance & Real Estate	28,000	44,100	50,100	6,000	13.6
Services	152,200	248,600	302,800	54,200	21.8
Public Administration & Postal Service 3/	55,500	84,600	102,100	17,500	20.7
Total, All Industries	626,400	870,400	992,900	122,500	14.1

1/ Industry breakdown includes wage and salary, self-employed, domestic, and unpaid family workers.

2/ 1975 annual average estimates based on projections of total employment by matrix industry.

3/ Where possible, government workers have been included under industry categories in which their primary function occurs, e.g. teachers under Services.

4/ Detail may not add to totals due to rounding.

Table 2 presents estimated average employment for the years 1960, 1970, and 1975 for nine summary occupational groupings. The categories with the largest expected growth, professional and technical, clerical, and service workers, account for 79,100 or 65% of total growth in employment levels during the period 1970 to 1975. It should be noted that these occupations are characteristic of the staffing in the industry sectors described in Table 1 as being the probable leaders in employment growth.

Materials producing and handling occupations will share in Colorado's growth to a considerably lesser degree. Growth in employment levels in these vocations will not exceed 2.5 percent per year and job opportunities will be more dependent upon replacement needs than upon expansion.

TABLE 2

EMPLOYMENT BY BROAD OCCUPATIONAL GROUP 1960-1975: COLORADO

	Annual Averages			Change, 1970-1975	
Occupational Group	1960	1970	1975 1/	Number	Percent
Professional, Technical & Kindred	79,000	126,100	152,400	26,300	20.9
Managers, Official & Proprietors	73,400	97,800	109,400	11,600	11.9
Clerical & Kindred Workers	101,900	156,800	184,100	27,300	17.4
Sales Workers	41,000	52,600	60,800	8,200	15.6
Craftsmen, Foremen & Kindred	82,200	108,300	121,700	13,400	12.4
Operatives & Kindred Workers	88,900	115,300	127,300	12,000	10.4
Service Workers	83,800	126,300	151,800	25,500	20.2
Laborers, except Farm & Mine	33,300	40,600	42,300	1,700	4.2
Farmers & Farm Workers	42,900	46,500	43,100	-3,400	-7.3
Total, All Occupations 2/	626,400	870,400	992,900	122,500	14.1

1/ 1975 Annual Average estimates based on projection of total employment by matrix industry.

2/ Detail may not add to totals due to rounding.

Table 3 highlights an interesting aspect of job development in Colorado. Even in the 18 occupations with the greatest number of expected job openings, the number of jobs resulting from expansion of employment levels accounts for only 45% of total jobs generated. In all occupations the percentage is 44% indicating that areas of high employment growth, supply the majority of job opportunities through the regular replacement of workers who have left the work force for one reason or another. This aggregative analysis, however, should not disguise the fact that certain specific occupations differ considerably. For lawyers and judges, for instance, 80% of job opportunities will result from increased demand for their services; while for farmers and farm workers, less than half of the workers who leave the work force will be replaced at all.

Also, only three of the 18 occupations currently have an entrance requirement of a bachelor's degree or more. This corroborates national studies which suggest that more attention should be directed toward the recruitment and training of persons with non-scholarly skills. Although the Professional, Technical and Kindred occupational group (see Table 2) represents the highest growth rate of the broad groups, informal observation indicates that the supply of applicants in these fields will, in many specific occupations, exceed the employer demand for their services. On the other hand, most of the remaining occupations require some form of post-secondary school training and serve to emphasize the need for close attention to the vocational school and community college concept.

TABLE 3

OCCUPATIONS WITH LARGEST NUMBER OF JOB OPENINGS 1970-1975 1/

	Job Openings due to:		
Occupation	Replacement	Change in Employment Level	Total Openings
Nurses, Professional	2,890	2,350	5,240
Teachers, Elementary	3,620	390	4,010
Lawyers & Judges	690	2,730	3,420
Office Machine Operators	1,850	1,900	3,750
Bookkeepers, Hand	2,580	830	3,410
Cashiers	2,580	2,390	4,970
Sales Workers	10,550	8,210	18,760
Foremen	1,700	1,390	3,090
Motor Vehicle Mechanics	1,030	2,290	3,320
Drivers, Bus, Truck, Tractor	1,580	2,470	4,050
Private Household Workers	5,280	2,480	7,760
Policemen, Detectives, etc.	860	2,120	2,980
Cook, except Private Household	2,380	1,740	4,120
Waiters & Waitresses	3,860	2,440	6,300
Attendants, Hospital & Other Inst.	3,480	4,590	8,070
Janitors & Sextons	2,560	1,520	4,080
Nurses, Practical	1,780	1,720	3,500
Laborers, except Farm & Mine	4,220	1,720	5,940
Total	53,490 (55%)	43,280 (45%)	96,770

1/ Occupations requiring 500 or more additional workers per year.

Methodology

The various steps of the methodology might best be listed to facilitate understanding:

1. Projection to 1975 of wage and salary employment for 56 industries in Colorado, based on 1958 - 1970 data.
2. Conversion of industry estimates from 56 Colorado industries to 116 national matrix industries.
3. Conversion of employment concepts from wage and salary to total employment for the years 1960, 1970, and 1975, adjusting to exclude multiple job holders' secondary jobs.
4. Creation of surrogate Colorado industry/occupation matrix for 1960, adjusting national staffing patterns to reflect Colorado distribution of occupational employment by industry.
5. Creating surrogate matrices for 1970 and 1975 based on changes in national staffing patterns applied to 1960 Colorado matrix.
6. Estimation of 1970 and 1975 employment by matrix occupation by applying 1975 industry projections to 1975 matrix of occupational patterns by industry.
7. Estimation of replacement demand by occupation, 1970-1975 using national death, retirement, and separation rates for each occupation.
8. Review of procedures of output and summarization to report form.
9. Publication of report.

Note: Steps numbered 1, 4, 5, and 6 were accomplished in whole or part at the national office of the Manpower Administration, U. S. Department of Labor, in Washington, D. C.

MASTER TABLE: AVERAGE EMPLOYMENT, ALL OCCUPATIONS, COLORADO 1970-1975

OCCUPATION	1970 EMPLOYMENT	1975 EMPLOYMENT 1/	1970-1975 JOB OPENINGS DUE TO: Replacement Needs	1970-1975 JOB OPENINGS DUE TO: Change in Employ. Level	1970-1975 TOTAL JOBS DUE TO REPLACEMENT & EMPLOY. CHANGE
PROFESSIONAL, TECH, KINDRED	126,100 2/	152,420	23,180	26,310	49,490
Engineers, Technical	9,910	11,230	870	1,320	2,190
Engineers, Aeronautical	430	580	20	150	170
Engineers, Chemical	290	330	20	30	50
Engineers, Civil	2,370	2,490	280	120	400
Engineers, Electrical	1,950	2,270	130	320	450
Engineers, Industrial	870	1,110	80	250	330
Engineers, Mechanical	1,630	1,800	140	170	310
Engineers, Metallurgical	220	240	20	20	40
Engineers, Mining	320	360	30	40	70
Other Engineers, Tech.	1,840	2,060	150	210	360
Medical & Other Health Wkr.	22,280	27,130	5,650	4,850	10,500
Dentists	850	990	140	140	280
Dietitians & Nutritionists	400	450	110	50	160
Nurses, Professional	9,310	11,660	2,890	2,350	5,240
Optometrists	160	170	20	10	30
Osteopaths	120	150	20	30	50
Pharmacists	1,620	1,510	280	-110	170
Physicians & Surgeons	2,680	3,330	470	640	1,110
Psychologists	420	540	10	120	130
Tech, Medical & Dental	3,420	4,860	940	1,440	2,380
Veterinarians	360	440	50	90	140
Other Medical & Health Wkr.	2,940	3,040	720	100	820
Teachers	34,670	37,250	7,140	2,580	9,720
Teachers, Elementary	14,160	14,560	3,620	390	4,010
Teachers, Secondary	11,420	12,080	1,970	670	2,640
Teachers, College	6,200	7,120	920	920	1,840
Teachers, Other	2,890	3,490	630	600	1,230
Natural Scientists	3,790	4,600	370	810	1,180
Chemists	810	1,040	70	230	300
Agricultural Scientists	580	660	50	80	130
Biological Scientists	610	740	90	130	220
Geologists & Geophysicists	490	540	30	50	80

OCCUPATION	1970 EMPLOYMENT	1975 EMPLOYMENT	1970-1975 JOB OPENINGS DUE TO:		1970-1975 TOTAL JOBS DUE TO REPLACEMENT & EMPLOY. CHANGE
			Replacement Needs	Change in Employ. Level	
Natural Scientists (cont.)					
Mathematicians	430	530	50	90	140
Physicists	350	460	40	110	150
Other Natural Scientists	530	640	50	110	160
Social Scientists	770	940	140	170	310
Economists	290	360	50	70	120
Statisticians & Actuaries	350	420	60	70	130
Other Social Scientists	130	160	30	30	60
Tech, Exc. Medical & Dental	10,420	11,780	810	1,380	2,190
Draftsmen	3,070	3,140	210	70	280
Surveyors	710	690	60	-30	30
Air Traffic Controllers	370	460	20	90	110
Radio Operators	360	440	20	80	100
Technicians, Other	5,910	7,070	510	1,170	1,680
Other Prof. Technical, Kindred	44,260	59,470	8,190	15,200	23,390
Accountants & Auditors	6,430	7,960	1,040	1,530	2,570
Airplane Pilots & Navigtrs.	1,070	1,360	100	290	390
Architects	460	390	30	-60	-30
Clergymen	2,200	2,340	380	150	530
Designers, Exc. Desgn. Draftsmn.	730	840	90	110	200
Editors & Reporters	1,030	1,160	220	130	350
Lawyers & Judges	2,880	5,610	690	2,730	3,420
Librarians	1,440	1,730	450	290	740
Personnel & Lbr. Relations	2,080	2,840	330	760	1,090
Photographers	690	730	90	40	130
Social & Welfare Workers	3,080	3,930	780	860	1,640
Teachers, Wkrs. in Arts, Entrmnt.	8,400	9,310	1,380	910	2,290
Prof., Technical, Kindred Ned.	13,780	21,260	2,630	7,480	10,110
MANAGERS, OFFICIALS, PROPRITRS.	97,810	109,430	15,560	11,620	27,180
Conductors, Railroad	450	530	110	80	190
Officers, Pilots, Enginrs Ship	110	120	10	0	10
Creditmen	720	910	120	200	320
Purchasing Agents	1,560	1,710	200	140	340
Postmasters & Assistants	380	400	100	20	120
Mgrs., Officials, Prop. Nec	94,590	105,760	15,030	11,170	26,200

OCCUPATION	1970 EMPLOYMENT	1975 EMPLOYMENT 1/	1970-1975 JOB OPENINGS DUE TO: Replacement Needs		1970-1975 TOTAL JOBS DUE TO REPLACEMENT & EMPLOY. CHANGE
			Replacement Needs	Change in Employ. Level	
CLERICAL & KINDRED WORKERS	156,830	184,100	40,620	27,270	67,890
Stenogrphrs, Typists, Secys	39,930	48,440	13,260	8,510	21,770
Office Machine Operators	6,370	8,270	1,850	1,900	3,750
Other Clerical & Kindred	110,530	127,380	25,520	16,860	42,380
Accounting Clerks	5,630	6,230	1,250	600	1,850
Bookkeepers, Hand	10,100	10,920	2,590	830	3,420
Bank Tellers	2,620	3,370	630	750	1,380
Cashiers	9,840	12,220	2,580	2,390	4,970
Mail Carriers	2,740	3,240	310	500	810
Postal Clerks	3,240	3,840	430	610	1,040
Shipping & Receiving Clerks	3,150	3,470	340	320	660
Telephone Operators	5,290	5,500	1,590	210	1,800
Clerical & Kindred Nec.	67,930	78,600	15,830	10,670	26,500
SALES WORKERS	52,590	60,800	10,550	8,210	18,760
Other Sales Workers, Nec.	52,590	60,800	10,550	8,210	18,760
CRAFTSMEN, FOREMEN, AND KINDRED	108,320	121,680	12,580	13,360	25,940
Construction Craftsmen	31,380	34,500	3,890	3,620	7,510
Carpenters	9,410	10,270	1,360	860	2,220
Brickmasons, Stone, Tile Sttrs.	2,350	2,570	220	220	440
Cement & Concrete Finishers	770	850	80	90	170
Electricians	4,680	5,460	490	770	1,260
Excavating, Grading Mach. Oprs.	3,850	4,400	320	550	870
Painters & Paperhangers	4,600	5,080	760	480	1,240
Plasterers	420	430	40	10	50
Plumbers & Pipefitters	3,820	4,350	440	530	970
Roofers & Slaters	710	750	90	50	140
Structural Metalworkers	770	830	100	60	160
Foremen, Nec.	13,510	14,900	1,710	1,390	3,100
Metalworking Craftsmen Exc. Mech.	8,860	9,710	1,070	840	1,910
Machinists & Related Occup.	4,170	4,490	520	320	840
Blacksmiths, Forgemen, Hammermen	300	290	60	-10	50
Boilermakers	230	250	30	20	50
Heat Treaters, Annealrs., Temprs.	140	160	10	10	20
Millwrights	530	590	60	60	120
Molders, Metal (Exc. Coremkrs.)	260	280	20	20	40
Patternmakers, Metal & Wood	290	370	40	80	120
Rollers & Roll Hands	290	320	40	20	60

<table>
<tr><th rowspan="2">OCCUPATION</th><th rowspan="2">1970 EMPLOYMENT</th><th rowspan="2">1975 EMPLOYMENT 1/</th><th colspan="2">1970-1975 JOB OPENINGS DUE TO:</th><th rowspan="2">1970-1975 TOTAL JOBS DUE TO REPLACEMENT &amp; EMPLOY. CHANGE</th></tr>
<tr><th>Replacement Needs</th><th>Change in Employ. Level</th></tr>
<tr><td>Metalworking Craftsmen Exc. Mech.(cont.)</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Sheet Metal Workers</td><td>1,440</td><td>1,590</td><td>140</td><td>150</td><td>290</td></tr>
<tr><td>Toolmakers, Diemakers, Setters</td><td>1,220</td><td>1,390</td><td>150</td><td>170</td><td>320</td></tr>
<tr><td>Mechanics &amp; Repairmen</td><td>34,760</td><td>40,640</td><td>3,630</td><td>5,890</td><td>9,520</td></tr>
<tr><td>Airplane Mech. &amp; Repairmen</td><td>2,160</td><td>2,600</td><td>140</td><td>440</td><td>580</td></tr>
<tr><td>Motor Vehicle Mechanics</td><td>12,010</td><td>14,310</td><td>1,030</td><td>2,290</td><td>3,320</td></tr>
<tr><td>Office Machine Mechanics</td><td>770</td><td>1,000</td><td>50</td><td>230</td><td>280</td></tr>
<tr><td>Radio &amp; TV Mechanics</td><td>2,080</td><td>2,680</td><td>130</td><td>600</td><td>730</td></tr>
<tr><td>Railroad &amp; Car Shop Mech.</td><td>370</td><td>430</td><td>70</td><td>60</td><td>130</td></tr>
<tr><td>Other Mechanics &amp; Repairmen</td><td>17,360</td><td>19,620</td><td>2,220</td><td>2,260</td><td>4,480</td></tr>
<tr><td>Printing Trades Craftsmen</td><td>2,490</td><td>2,720</td><td>310</td><td>230</td><td>540</td></tr>
<tr><td>Compositors &amp; Typesetters</td><td>1,400</td><td>1,450</td><td>180</td><td>50</td><td>230</td></tr>
<tr><td>Electrotyprs &amp; Stereotyprs.</td><td>40</td><td>40</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Engravers Exc. Photengravers</td><td>110</td><td>130</td><td>20</td><td>20</td><td>40</td></tr>
<tr><td>Photoengrvrs. &amp; Lithogrphrs.</td><td>270</td><td>360</td><td>30</td><td>80</td><td>110</td></tr>
<tr><td>Pressmen &amp; Plate Printers</td><td>670</td><td>750</td><td>70</td><td>90</td><td>160</td></tr>
<tr><td>Transp. &amp; Pub. Util. Craftsmen</td><td>5,370</td><td>6,010</td><td>460</td><td>630</td><td>1,090</td></tr>
<tr><td>Line &amp; Servmn., Tel. &amp; Power</td><td>4,650</td><td>5,180</td><td>300</td><td>530</td><td>830</td></tr>
<tr><td>Locomotive Engineers</td><td>520</td><td>610</td><td>150</td><td>90</td><td>240</td></tr>
<tr><td>Locomotive Firemen</td><td>200</td><td>210</td><td>20</td><td>20</td><td>40</td></tr>
<tr><td>Other Craftsmen &amp; Kindred</td><td>11,960</td><td>12,720</td><td>1,520</td><td>750</td><td>2,270</td></tr>
<tr><td>Bakers</td><td>1,180</td><td>1,260</td><td>150</td><td>90</td><td>240</td></tr>
<tr><td>Cabinetmakers</td><td>580</td><td>610</td><td>100</td><td>30</td><td>130</td></tr>
<tr><td>Cranemen, Derrickmen, Hoistmen</td><td>1,420</td><td>1,620</td><td>160</td><td>210</td><td>370</td></tr>
<tr><td>Glaziers</td><td>240</td><td>290</td><td>20</td><td>50</td><td>70</td></tr>
<tr><td>Jewelers &amp; Watchmakers</td><td>460</td><td>500</td><td>80</td><td>40</td><td>120</td></tr>
<tr><td>Loom Fixers</td><td>10</td><td>10</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Opticns., Lens Grinders, Polshrs.</td><td>200</td><td>220</td><td>30</td><td>20</td><td>50</td></tr>
<tr><td>Inspectors, Log &amp; Lumber</td><td>130</td><td>160</td><td>30</td><td>30</td><td>60</td></tr>
<tr><td>Inspectors, Other</td><td>1,060</td><td>990</td><td>160</td><td>-60</td><td>100</td></tr>
<tr><td>Upholsterers</td><td>680</td><td>760</td><td>80</td><td>80</td><td>160</td></tr>
<tr><td>Craftsmen &amp; Kindred Wkrs. Nec.</td><td>6,020</td><td>6,300</td><td>740</td><td>270</td><td>1,010</td></tr>
<tr><td>OPERATIVES &amp; KINDRED WKRS.</td><td>115,290</td><td>127,290</td><td>12,860</td><td>11,990</td><td>24,850</td></tr>
<tr><td>Drivers &amp; Deliverymen</td><td>27,570</td><td>31,020</td><td>2,240</td><td>3,450</td><td>5,690</td></tr>
<tr><td>Drivers, Bus, Truck, Tractor</td><td>20,700</td><td>23,180</td><td>1,580</td><td>3,470</td><td>4,050</td></tr>
<tr><td>Deliverymen, Routemen, Cab Drivers</td><td>6,870</td><td>7,840</td><td>660</td><td>970</td><td>1,630</td></tr>
</table>

OCCUPATION	1970 EMPLOYMENT	1975 EMPLOYMENT 1/	1970-1975 JOB OPENINGS DUE TO: Replacement Needs	1970-1975 JOB OPENINGS DUE TO: Change in Employ. Level	1970-1975 TOTAL JOBS DUE TO REPLACEMENT & EMPLOY. CHANGE
Semiskilled Metalworking Occup.	12,320	14,010	1,320	1,680	3,000
Assemblrs., Metalworking Class A	810	950	110	140	250
Assemblrs., Metalworking Class B	2,980	3,450	390	470	860
Inspectors, Metalworking Class B	1,230	1,360	160	130	290
Machine Tool Opers., Class B	1,860	1,930	230	80	310
Electroplaters	130	130	10	0	10
Electroplater Helpers	190	200	20	10	30
Furnacemen, Smeltermen, Pourers	450	490	50	40	90
Heaters, Metal	60	70	10	10	20
Welders & Flame Cutters	4,610	5,420	360	810	1,170
Transp. & Pub. Util. Operatives	1,230	1,420	140	190	330
Brakemen, Switchmen Railroad	960	1,130	110	160	270
Power Station Operators	200	220	20	20	40
Sailors & Deckhands	70	70	10	10	10
Semiskilled Textile Occup.	2,030	2,290	540	260	800
Knitters, Loopers, & Toppers	20	20	0	0	0
Spinners, Textile	20	20	0	0	0
Weavers, Textile	40	40	10	0	10
Sewers & Stitchers Mfg.	1,960	2,200	520	250	770
Other Operatives & Kindred	72,140	78,560	8,620	5,420	15,040
Asbestos, Insulation Workers	230	260	30	30	60
Auto Attendants, Gas & Pkng.	6,230	7,220	440	990	1,430
Blasters & Powdermen	80	100	10	20	30
Lndr. & Dry Cleaning Oprs.	4,240	4,480	1,020	250	1,270
Mine Operatives, Laborers Nec.	4,290	4,290	310	-10	300
Meat Cutters, Exc. Meat Packing	2,240	2,580	290	340	630
Operatives & Kindred Nec.	54,830	59,630	6,520	4,800	11,320
SERVICE WORKERS	126,330	151,750	32,990	25,430	58,420
Private Household Workers	14,480	16,960	5,280	2,480	7,760
Protective Service Workers	17,040	20,680	2,860	3,640	6,500
Firemen	3,690	4,740	840	1,050	1,890
Policemen, Detectives, Etc.	8,440	10,560	860	2,120	2,980
Guards, Watchmen, Doorkeepers	4,910	5,390	1,170	470	1,640
Food Service Workers	31,110	36,580	7,650	5,480	13,130
Bartenders	2,320	2,780	430	460	890
Cooks, Exc. Private Households	10,130	11,870	2,380	1,740	4,120
Counter & Fountain Workers	3,800	4,630	990	830	1,820

OCCUPATION	1970 EMPLOYMENT	1975 EMPLOYMENT 1/	1970-1975 JOB OPENINGS DUE TO: Replacement Needs	1970-1975 JOB OPENINGS DUE TO: Change in Employ. Level	1970-1975 TOTAL JOBS DUE T REPLACEMENT & EMPLOY. CHANGE
Food Service Workers (cont.)					
Waiters & Waitresses	14,860	17,300	3,860	2,440	6,300
Other Service Workers	63,700	77,530	17,190	13,830	31,020
Airline Stewards, Stewardesses	750	1,010	200	260	460
Attendants, Hosp. & Other Inst.	11,840	16,430	3,480	4,590	8,070
Charwomen & Cleaners	3,120	3,900	840	780	1,620
Janitors & Sextons	9,390	10,900	2,560	1,520	4,080
Nurses, Practical	4,530	6,250	1,780	1,720	3,500
Service Workers Nec.	34,070	39,030	8,330	4,960	13,290
LABORERS, EXC. FARM & MINE	40,550	42,270	4,220	1,720	5,940
FARMERS & FARM WORKERS	46,530	43,100	5,110	-3,430	1,680
TOTAL ALL OCCUPATIONS	870,350	992,900	157,660	122,480	280,140

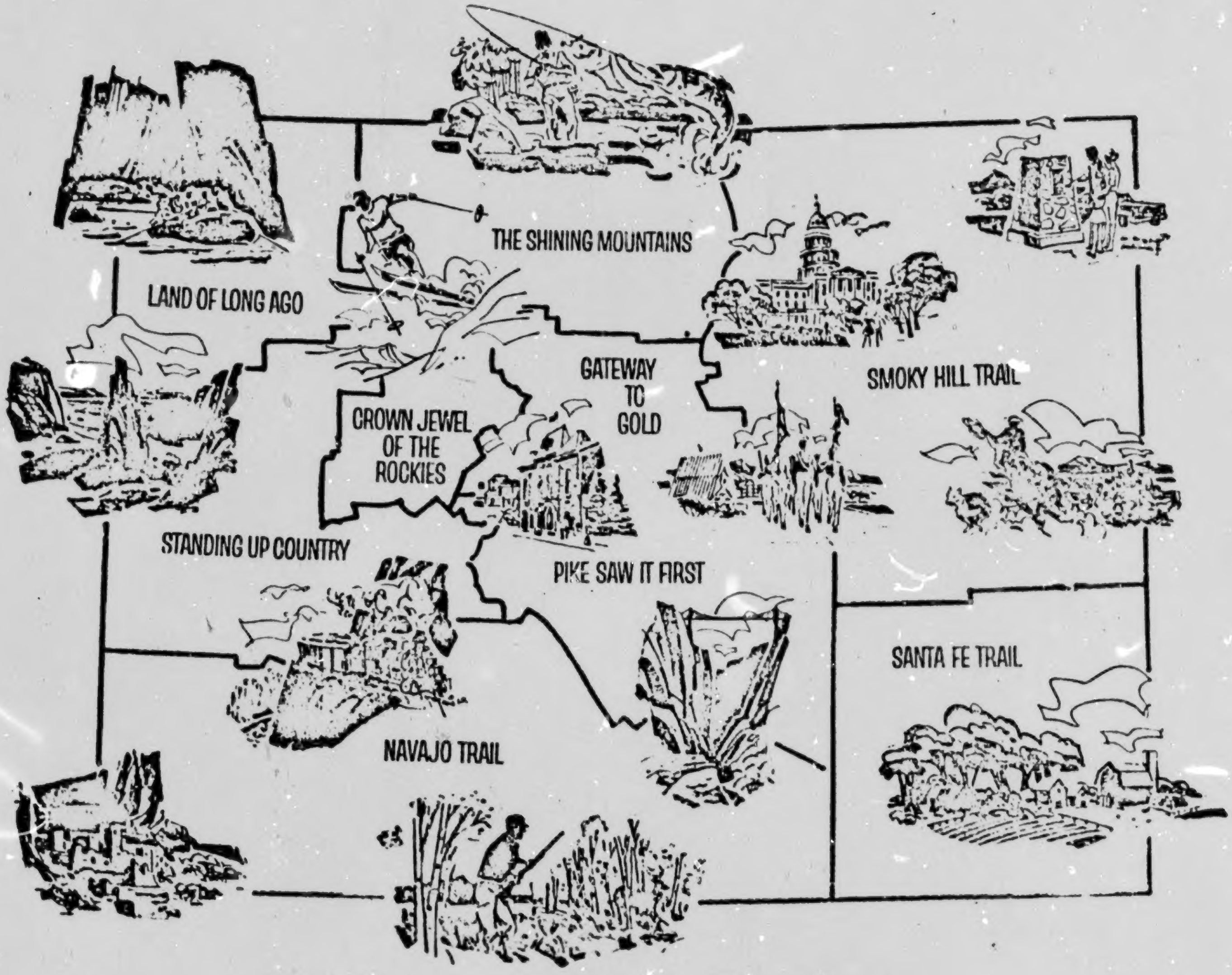
1/ 1975 Annual average estimates based on projection of total employment by matrix industry.

2/ Detail may not add to totals due to rounding.

COLORADO DEPARTMENT OF LABOR & EMPLOYMENT
DIVISION OF EMPLOYMENT

11/1/72
11/30/72

Inventory of Job Openings



1210 Sherman Denver Colorado

FORM 566-2 STATE COLORADO PERIOD 11/1/72 to 11/30/72 PAGE 1 OF 3

LINE NUMBER	OCCUPATIONAL CODE	OCCUPATIONAL TITLE	NUMBER OPENINGS	SEX	RATE OF PAY	ORDER-HOLDING OFFICE	SPECIAL JOB INFORMATION
* 1	001.281	Draftsman	1	Open	$2.50 hr	Loveland ESARS 0074646 VIII CO 200-72	73 - General architectural drafting and blue printing.
* 2	003.181	Electronics Tech.	1	"	$3.50 hr up DOA&E	Longmont ESARS 0071052 VIII CO 202-72	36 - Knowledge of linear circuits as wel as digital. Drafting exper. desired.
* 3	005.081	Railroad Engineer	1	"	$6.50 hr	Pueblo ESARS 0073288 VIII CO 227-72	13 - Eng. Degree. Will oversee construction and evaluation of RR track and guid way for high speed testing of equip.
* 4	005.081	Construction Engineer	1	"	$1,100 mo	Colorado Springs ESARS 0078867 VIII CO 181-72	86 - Masters Degree in Eng. 2 yrs const., plant building, design and field work. 1 yr residential building construction.
* 5	018.188	Surveyor Party Chief	1	"	$9,200+yr	Greeley ESARS 0099012 VIII CO 174.72	89 - 3 yr exper. as party chief. Registration as land surveyor.
* 6	020.088	Engineer Analyst	1	"	$7 hr	Pueblo ESARS 0072972 VII CO 226-72	13 - Eng. Degree with specialization in data or analytical processing equipment.
* 7	097.228	Instructor, Vocational Training	1	"	Open	Pueblo ESARS 0069145 VIII CO 198-72	82 - 3 yrs exper. as diesel mechanic wit BA Degree. May substitute degree with ex
* 8	160.288	Estimator	1	"	$175 wk	Greeley ESARS 0088573 VIII CO 222-72	17 - BE in Chem. Eng. & MA in Chem. 5 yr exper. with emphasis in concrete product 3 yrs exper. as Consulting Engr.

FORM 566-2 STATE COLORADO PERIOD 11/1/72 to 11/30/72 PAGE 2 OF 3

LINE NUMBER	OCCUPATIONAL CODE	OCCUPATIONAL TITLE	NUMBER OPENINGS	SEX	RATE OF PAY	ORDER-HOLDING OFFICE	SPECIAL JOB INFORMATION
* 9	183.118	Production Manager	1	Open	$500 mo	Cortez ESARS 0077225 VIII CO 225-72	32 - Fully experienced in the field of assembly and baking of pottery.
*10	185.168	Parts Manager	1	"	$5,000	Greeley ESARS 0096844 VIII CO 160-72	55 - Experience in parts management onl
*11	185.168	Manager, Store	4	"	$200 wk + lodging	Colorado Springs ESARS 0443593 VIII CO 130-72	54 - Couple only; prefer older; semi retired or retired military.
*12	365.381	Shoe Repairman	1	"	$125+wk DOE	Loveland ESARS 0050384 VIII CO 210-72	72 - 2 yrs. experience. Repairs shoes, belts, luggage, and purses.
*13	525.381	Butcher	1	"	$3 hr	Cortez ESARS 0077129 VIII CO 213-72	20 - One - two years exper. preferred in the trade.
*14	600.280	Machinist	2	"	$2.50-$3 hr DOE	Rocky Ford ESARS 0099673 VIII CO 235-72	35 - Operate lathes and milling machine in fabrication and repair of Ag. relate equip.
*15	600.280	Machinist	2	"	$3 hr DOE	Longmont ESARS 0054839 VIII CO 203-72	35 - Three - five yrs. exper operating mills and lathes, or tool and dye, or mold making. Own tools.
*16	601.280	Tool-Machine Set Up Operator	1	"	$3.50 hr	Loveland ESARS 0074621 VIII CO 201-72	34 - Custom make various small parts; d polishing and de-burring; perform own quality control.

FORM 566.2 STATE COLORADO PERIOD 11/1/72 to 11/30/72 PAGE 3 OF 3

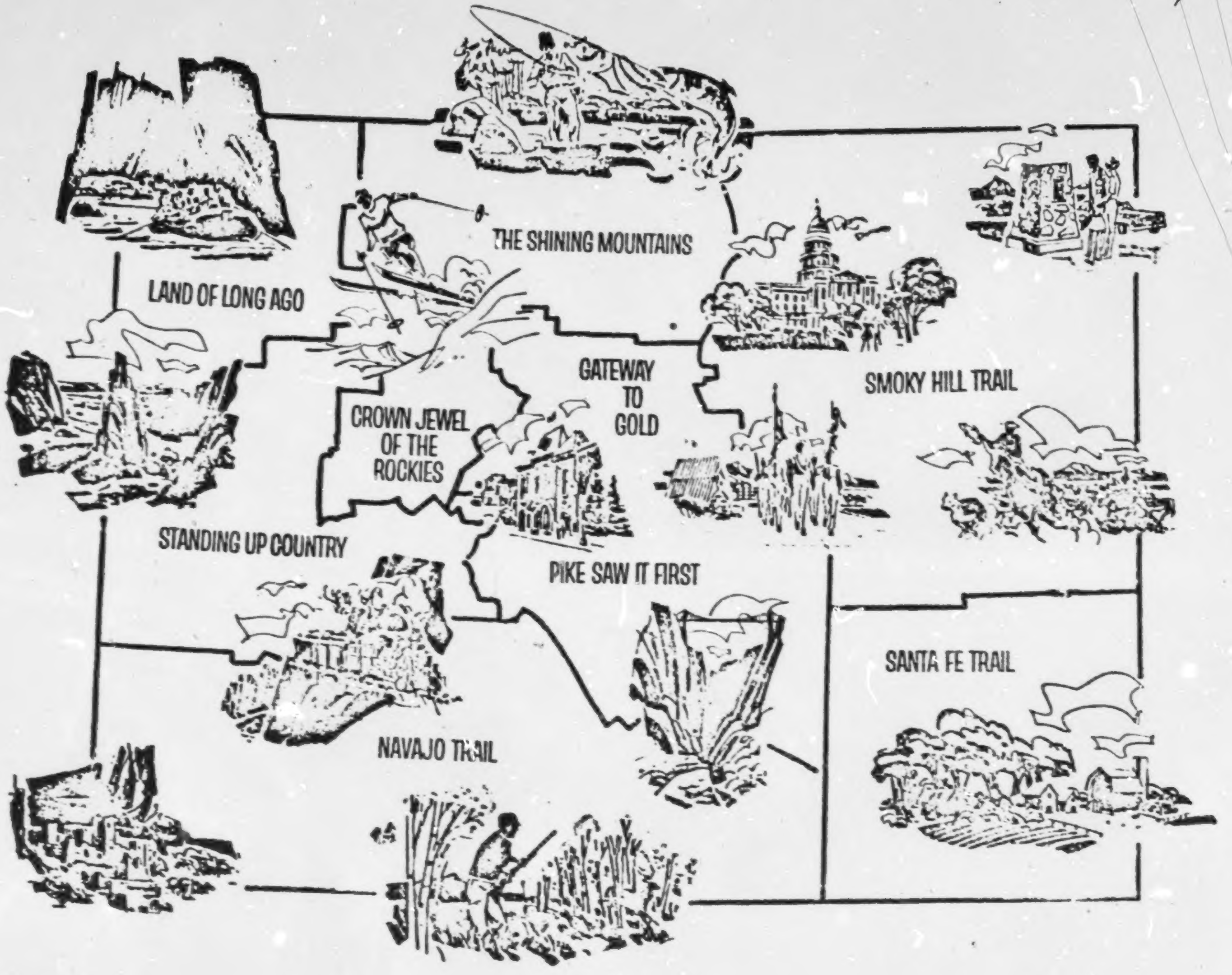
LINE NUMBER	OCCUPATIONAL CODE	OCCUPATIONAL TITLE	NUMBER OPENINGS	SEX	RATE OF PAY	ORDER-HOLDING OFFICE	SPECIAL JOB INFORMATION
*17	620.281	Auto Mechanic	1	Open	50% FR car; $9 hr Trucks $10 hr	Longmont ESARS 0071431 VIII CO 214-72	55 - 3 yrs. current exper. in trans., rear-end, tune-up. Own hand tools.
*18	710.281	Electromechanical Technician	1	"	$5 hr	Pueblo ESARS 0069301 VIII CO 179-72	73 - Engr. Degree. Exper in testing, analyzing and adjusting electromechanic instruments, gauges, etc.
*19	721.281	Electric Motor Inspector	8	"	$4.28-$4.64 after 1 yr	Pueblo ESARS 0461320 VIII CO 132-72	33 - H.S. or GED exper. in repairing of AC/DC motors to 12,000 hp. Journeyman status. Rigid physical exam. USWA Union 30 days.
*20	821.381	Lineman	1	"	$5.01 hr	Pueblo ESARS 0100796 VIII CO 223-72	49 - Journeyman Lineman. Repair light, heat and power.
*21	824.281	Electrician	6	"	$4 or $5 if licensed	Colorado Springs ESARS 00446069 VIII CO 142-72	17 - Four years verified employment as an Electrician. Someone who can get a Colorado License in 30 days. Non-union.
*22	827.281	Electrical Appliance Serviceman	1	"	$8,000 yr	Pueblo ESARS 0068018 VIII CO 207-72	76 - Journeyman. Installs, services and repairs electrical appliances.
*23	829.281	Underground Repairman	1	"	$4.86	Pueblo ESARS 007334 VIII CO 158-72	49 - Journeyman Electrician. Repairs cables, switches, etc. in ungerground areas.
*24	951.885	Fireman, High Pressure	1	"	$3.53 hr	Pueblo ESARS 0049053 VIII CO 137-72	32 - Colo. "A" license required. Tend portable or stationary high pressure boiler.

ALWAYS CONTACT OHO BEFORE MAKING REFERRAL.
SUBMIT FORM ES 565 TO REACH STATE OFFICE NOT LATER THAN NOVEMBER 20, 1972 FOR OPENINGS TO BE LISTED IN NEXT INVENTORY.
INCLUDE ALL NECESSARY INFORMATION INCLUDING: NAME OF LOCAL OFFICE -- ESARS NUMBER -- VIII CO NUMBER -- FIRST 2 DIGITS OF SIC CODE -- SPECIAL JOB INFORMATION.

COLORADO DEPARTMENT OF LABOR & EMPLOYMENT
DIVISION OF EMPLOYMENT

Labor Supply Bulletin

2/15/72
3/15/72



1210 Sherman Denver Colorado

STATE LABOR SUPPLY BULLETIN	**FOR** Colorado Department of Labor and Employment Division of Employment 1210 Sherman Street Denver, Colorado 80203	PAGE 1 OF 4 PAGES PERIOD 2/15/72 to 3/15/72
I OCCUPATIONAL TITLE (3-digit occupational groups)	II SUPPLY INFORMATION	III LOCAL OFFICE
001. Draftsman	3 Vets. No openings.	Pueblo
003. Electronic Engineer Electronic Draftsman Electronic Technician	45 Primarily aerospace.	Denver
003. Electronic Repairman	1 Vet.	Monte Vista
003. Electronic Technician	1 No openings.	Fort Collins
007. Mechanical Engineer Mechanical Draftsman	43 Varied experience.	Denver
018. Rodman	1 Vet.	Monte Vista
020. Programmer Mathematician	24 Varied experience.	Denver
024. Geologist	1 No openings.	Fort Collins
040. Soil Conservationist	1 No openings.	Fort Collins
041. Biological Sciences	35 Biologists - Zoologists.	Denver
097. Instructor Cosmetology	1 No openings.	Fort Collins
143. Photographer	1 Vet.	Monte Vista
162. Purchasing Agent	1 No openings.	Loveland
169. Office Manager Administrative Assist.	57 Light accounting	Denver

Form ES-562
R-2/69

STATE LABOR SUPPLY BULLETIN	FOR Colorado Department of Labor and Employment Division of Employment 1210 Sherman Street Denver, Colorado 80203	PAGE 2 OF 4 PAGES PERIOD 2/15/72 to 3/15/72
I **OCCUPATIONAL TITLE (3-digit occupational groups)**	II SUPPLY INFORMATION	III **LOCAL OFFICE**
169. Manager Trainee	7 Vets. No openings.	Pueblo
185. Store Manager	1 No openings.	Fort Collins
195. Probation Officer	1 No openings.	Fort Collins
195. Probation Officer	1 No openings.	Fort Collins
219. Office Clerk	1 Vet.	Monte Vista
222. Shipping Clerk	14 No openings.	Denver
223. Stock Clerk	1 Vet.	Monte Vista
223. Stock Clerk	40 Vets. Various skill levels - 60% service experience only.	Pueblo
242. Desk Clerk	1 Vet.	Monte Vista
289. Salesperson, General	10 Vets. No openings.	Pueblo
290. Sales Clerk	1 Vet.	Monte Vista
312. Bartender	1 Vet.	Monte Vista
318. Kitchen Helper	1 Vet.	Monte Vista
355. Nurse or Psychiatric Aide	20 Layoffs. General lack of demand.	Pueblo
379. Lifeguard	1 Vet.	Monte Vista
382. Janitor	1 Vet.	Monte Vista

Form ES-562
R-2/69

STATE LABOR SUPPLY BULLETIN	FOR Colorado Department of Labor and Employment Division of Employment 1210 Sherman Street Denver, Colorado 80203	PAGE 3 OF 4 PAGES PERIOD 2/15/72 to 3/15/72
I OCCUPATIONAL TITLE (3-digit occupational groups)	II SUPPLY INFORMATION	III LOCAL OFFICE
403. Row Boss	2 Vets.	Monte Vista
407. Parks Worker	4 Vets.	Monte Vista
421. Farm Hand, General	4 Vets. Seasonal layoffs. No demand.	Pueblo
525. Slaughtering, Breaking, Curing, and Related.	20 Closing of packing houses.	Denver
600. Machine Occupations	51 No openings.	Denver
600. Machine Trades	5 Vets.	Monte Vista
651. Printing Press Occ.	6 Plant closing and new applicants moving into Colorado.	Denver
700. Bench Work	3 Vets.	Monte Vista
801. Iron Worker	29 No openings.	Denver
803. Structural Work	16 Vets.	Monte Vista
804. Sheet Metal Worker	18 No openings.	Denver
810. Welder	58 No openings.	Denver
828. Electronics Worker	39 No openings.	Denver
869. Construction Worker	102 Vets. Seasonal layoffs, lack of new construction.	Durango

Form ES-562
R-2/69

STATE LABOR SUPPLY BULLETIN	FOR Colorado Department of Labor and Employment Division of Employment 1210 Sherman Street Denver, Colorado 80203	PAGE 4 OF 4 PAGES PERIOD 2/15/72 to 3/15/72
I OCCUPATIONAL TITLE (3-digit occupational groups)	II SUPPLY INFORMATION	III LOCAL OFFICE
869. Construction Worker	100 Vets. Various skill levels; seasonal layoffs and weather conditions creating an applicant surplus.	Pueblo
904. Semi Truck Driver	51 No openings.	Denver
920. Packaging Occupations	36 Work slowdown. New applicants moving into Colorado.	Denver

SUBMIT FORMS ES-526 TO REACH THE STATE OFFICE NOT LATER THAN MARCH 6, FOR INFORMATION TO BE LISTED IN NEXT LABOR SUPPLY BULLETIN. PLEASE DO NOT SEND IN NEGATIVE REPORTS.

Form ES-562
R-2/69

APPENDIX F

CITY & COUNTY
OF DENVER

COMMISSION ON
COMMUNITY RELAT

YOUTH
SERVICES
SYSTEM

DESCRIPTION OF PROGRAM

PURPOSE/OBJECTIVES

MAJOR ACTIVITIES

SPONSORING AGENCY

SOURCE(S) OF FUNDING

PERSONS SERVED

AREA SERVED

ELIGIBILITY REQUIREMENTS

PERIOD OF TIME COVERED BY PROGRAM

FACILITIES

PERSONNEL

APPENDIX G

R-1

JEFFERSON COUNTY PUBLIC SCHOOLS
809 QUAIL STREET / LAKEWOOD, COLORADO 80215 / (303) 237-687

Sent to:

Local and Regional
Placement Program
Directors

Jefferson County Public School System has been contracted by National Institute of Education and Ohio State University to develop a Comprehensive Career Education Model. One of the stated goals of this model is 100% relevant career placement of students leaving the secondary schools either by graduation or prior to graduation. In order to come close to this 100% relevancy goal, innovative approaches to student placement must be developed.

The term student placement implies three different types of placement; (1) Job Placement, either full time or part time, (2) Educational Placement, either post secondary or during school, and (3) Special Services Placement such as vocational rehabilitation.

In order to develop such a placement program it is necessary for us to examine and assess existing placement programs. This will indicate to us where placement needs are being met and remain unmet. Those areas that are unmet will suggest where developmental emphasis should be placed. In order to enlist your help in developing this program we are requesting the following information from you. We would like for you to send us informational literature such as: brochures explaining the program, various types of forms you use, information about special techniques and approaches your personnel employ to make the program a success, and information about support systems that you use in your program.

If you have time, we would appreciate your cooperation in filling out the attached form. In the "Evaluation" section of the form we are seeking two types of information. The first is the statistical evidence that you use in the evaluation of your program; the second is your ideas concerning possible expansion and/or improvement of your program if you consider such necessary.

We wish to express our sincere thanks for your assistance in the development of our program. Please let us know if you have questions concerning the Placement Program Component of the Comprehensive Career Education Model.

Cordially yours,

Jerry McLellan,
Career Placement Coordinator

Encl.

JMC/mas

PROJECT TITLE:

PERSONS SERVED:

AREA SERVED:

SPONSORING
AGENCY:

PURPOSE:

DESCRIPTION OF PROGRAM:

ELIGIBILITY REQUIREMENTS:

FUNDING:

PERSONNEL:

EVALUATION:

PROGRAM TITLE: Denver Youth Opportunity Center

PERSONS SERVED: Persons under 22 years of age who have problems of job choice, job preparation, advancement, or job finding: (1) Those whose education, training, and employment goals are validated and who are ready for placement. (2) Those who need help in selecting employment goals and in formulating steps to reach the goals. They may be high school seniors, recent graduates or dropouts or recent college dropouts. (3) Those youth who are difficult to place, who are under-educated, without appropriate goals with little or no motivation to work and who usually have no appreciable concept of the world of work or of normal employer expectations.

AREA SERVED: Greater Denver Area

PURPOSE: To provide a focal point for all governmental and community efforts to help youth 16 through 21 years of age to attain self sustaining positions in society.

DESCRIPTION OF PROGRAM: Youth Opportunity Center personnel contact the youth of Greater Denver by means of outreach and by regular incoming client traffic flow. The majority of the youth are hard to place, under-educated, without identified appropriate career goals and have little work motivation. Many are mistrustful, lack verbal skills and have court records. Counselors make client evaluations and provide counseling, testing, selection and referral services as needed. Counselors follow through with all clients when special services are needed such as welfare, legal aid, medical, mental health, rehabilitation, employability training, further education, etc.

SPONSORING AGENCY: Colorado Department of Labor and Employment

Youth Opportunity Center Manager

Mr. Robert D. Hase
500 Lincoln
Denver, Colorado 80203
Telephone (303) 892-3591

FUNDING: Federal Funding through Colorado Division of Employment

ELIGIBILITY REQUIREMENTS: All young men and women 16 through 21 years of age needing and desiring the services (Emphasis on service to economically and culturally disadvantaged youth).

PERSONNEL: A manager, an assistant manager, a research analyst, a training coordinator, a community organizer, 35 counselors, ten secretarial and clerical personnel, three custodial personnel.

EVALUATION: Federal, state and private groups commissioned by the state make periodic quantitative and qualitative evaluations. More than 12,000 individual youths are contacted annually by center personnel. There are approximately 4,600 placements per year. The large majority of these placements are permanent. Short time placements (under three days duration) are usually between only 300 and 500 per year. The population of Denver is approximately 14% Spanish Surnamed and 9% Black. Youth Opportunity Center Clients comprise a disproportionately high percentage of these minorities. Services are available for youth within the 16 to 21 year range, however, most of the youths served are either economically disadvantaged, culturally deprived and/or educationally handicapped.

APPENDIX H

PLACEMENT OFFICE APPLICATION

PLEASE PRINT * DO NOT FILL IN SPACES MARKED WITH A STAR *

NAME: Last First MI
BIRTHDATE: Mo Day Year

ADDRESS: Number Street City ZIP
TELEPHONE:
SEX: (circle o M

SCHOOL:
COUNSELOR:
MARITAL STATUS: (circle o S M

SOC SEC NR: / /
CLASSIFICATION: (circle one) Student Graduate Dropout

HEIGHT:
WEIGHT:
DR LIC: (circle one) Yes No
EMPLOYED AT PRESENT: (circle Yes

* STUDENT NR:
TYPE OF PLACEMENT: (circle one) Summer Time Full Time Part Ti

* RACE: (optional) B C O I OT
* COOP ED: BOE DE ICE HERO OWE TI
* SIZE: S M

* ATT: EX AV PR
* ATTEND SR HIGH: EX AV PR
* TRANS: Yes

* CURRICULUM: Col Prep Bus Voc Gen Oth
* HANDICAPPED: MR EM EH EC PH Oth

Jeffco Placement

FRONT

---

*VOCATIONAL COURSES COMPLETED

__Beginning Wood
__Advanced Wood
__Beginning Metal
__Advanced Metal
__Welding
__Beginning Drafting
__Advanced Drafting
__Architectural Design
__Basic Electricity
__Electronics
__Beginning Auto Mech
__Vocational Auto Mech

__Typing (under 30 wpm)
__Typing (over 30 wpm)
__Shorthand (under 90 wpm)
__Shorthand (over 90 wpm)
__Bookkeeping
__Business Law
__Business Management
__Office Machines
____
____
____
____

*INTEREST CATEGORIES

__0 Prof, Tech, & Mgt
__1
__2 Clerical and Sales
__3 Service
__4 Farming, Fishery, Fore
__5 Processing
__6 Machines Trades
__7 Bench Work
__8 Structural Work
__9 Miscellaneous

*LIST YOUR PREVIOUS WORK EXPERIENCE:

Employer	Kind of Work	How Long	*LIST TYPE OF SU OR PART TIME WO DESIRED:

STUDENT JOB REQUEST FILE

me	Length	Type	Search F Yes	
Last Name	20	A	X	
Frist Name	10	A	X	
Middle Initial	1	A	X	
Birthdate				
Month	2	N		
Day	2	N		X
Year	2	N		
Address				
Number and Street	20	AN		
City	15	A		
Telephone	7	N		X
Sex	1	A	X	
School Number	3	N	X	
Counselor	20	AN	X	
Marital Status	1	A	X	
S. S. #	9	N	X	
Classification	1	A	X	
Height (Size)	1	A	X	
Drivers License	1	A	X	
Employment Status	1	A	X	
Student Number	9	N	X	
Type of Employment	1	A	X	
e	1	A	X	
Coop Ed	1	A	X	
Att. Sr. Hi.	1	A		X
Transportation	1	A	X	
Curriculum	3	A	X	
Handicapped	6	A	X	
Voc Courses				
Beginning Wood	1	A	X	
Advanced Wood	1	A	X	
Beginning Metal	1	A	X	
Advanced Metal	1	A	X	
Welding	1	Z	X	
Beginning Drafting	1	A	X	
Advanced Drafting	1	A	X	
Architectual Design	1	A	X	
Basic Electricity	1	A	X	
Electronics	1	A	X	
Beginning Auto Mech	1	A	X	
Voc. Auto Mech	1	A	X	
Typing (under 30 wpm)	1	A	X	
Typing (over 30 wpm)	1	A	X	
Shorthand (under 90 wpm)	1	A	X	
Shorthand (over 90 wpm)	1	A	X	
Bookkeeping	1	A	X	
Business Law	1	A	X	
Business Management	1	A	X	
Office Machnies	1	A	X	

Name	Length	Type	Search F
			Yes
Interest Categories			
Prof, Tech and Mgt	1	N	X
Clerical and Sales	1	N	X
Service	1	N	X
Farming, Fishery, Forestry	1	N	X
Processing	1	N	X
Machines Trades	1	N	X
Bench Work	1	N	X
Structural Work	1	N	X
Miscellaneous	1	N	X
Previous Experience			
Employer	20	A	X
Kind of Work	10	A	X
How Long	2	N	X
Employer	20	A	X
Kind of Work	10	A	X
How Long	2	N	X
Employer	20	A	X
Kind of Work	10	A	X
How Long	2	N	X
Type of Part Time Job Desired			
#1	15	A	X
#2	15	A	X
#3	15	A	X
Type of Summer Job Desired			
#1	15	A	X
#2	15	A	X
#3	15	A	X
Employers Remarks			
#1	20	A	X
#2	20	A	X
#3	20	A	X
#4	20	A	X
#5	20	A	X
	459		

APPENDIX I

COMMUNITY ASSESSMENT

Data items for each organization or firm:

1. Identification number according to the Internal Revenue Service coding of employer numbers

2. Name of Organizations

3. Address, Phone Number, etc.

4. Contact person

5. For each occupation utilized:

   (a) Status code

      (1) Existing occupations
      (2) An occupation under development
      (3) An occupation being phased out

   (b) The number employed within each occupation (D.O.T.)

      (1) The number currently employed
      (2) We would retain the number employed last year and for prior years

   (c) Special coding to identify

      (1) Bilingual capability needed
      (2) On-the-job training provided
      (3) Minimum age specified
      (4) Seasonal work only
      (5) Union membership required
      (6) Disabled permissible
      (7) Part Timers OK
      (8) Shift work involved

APPENDIX J

JOB ORDER FORM

DATE RECEIVED:__________ BY:______________________ JOB NUMBER:_______

FIRM:______________________________________ PHONE:________

CONTACT PERSON:_________________________________ TIME:________

ADDRESS:____

DAYS: M-F MO TU WE TH FR SA SU TIME:________ NR & SEX WANTED:_______

STARTING DATE:_______________ PART TIME:___ FULL TIME:___ SUMMER TIME:___

COOP ED CONTACT (if any):_________________________ DATE:__________

COOP ED PLACEMENT (if any):_______________________ DATE:__________

JOB DESCRIPTION:____

____

____

____

Jeffco Placement FRONT

OCCUPATIONAL TITLE:______________________________ DOT:__________________

LOCATION:______________________________ ORDER ACTIVE:__________________

PAY: UNIT:_____________, MIN:__________, MAX:____________,& DOE:_________

COMM:_____________, TIPS:__________, OVERTIME:__________________

BENEFITS:

HOSP:_____________, VAC:__________, SICKLEAVE:__________PENSION:______

INSURANCE:_________ OTHER:__________,_____________,_______________

WORK EXP:___________US/CIT:_____________ TRAINEE:____________________

PHY REQ:____________ AGE MIN:_____________ED REQ:____________________

BACK

APPENDIX K

JOB ORDER FILE

Name	Length	Type	Searc Yes
Job Number	5	N	X
Firm	20	A	X
Date Received	6	N	
Received By	10	A	
Phone	7	N	
Contact Person	20	A	
Time Received	4	N	
Address	40	A	
Days	7	AN	X
Time	4	AN	X
Number of Employees Wanted	2	N	X
Starting Date	6	N	X
Part Time	1	N	X
Full Time	1	N	X
Summer Time	1	N	X
Coop Ed. Contract	20	A	
Date	6	N	
Coop Ed. Placement	20	A	
Date	6	N	
Job Description	400	AN	
Pay			
Unit	1	N	X
Min	7	N	X
Max	7	N	X
DOE-COMM-TIPS	1	N	X
Occupational Title	22	AN	X
DOT	6	N	X
Age			
Min	2	N	X
Educational Req.	2	AN	X
Experience	2	N	X
Citizenship	1	N	X
Trainee	1	N	X
Call for Appt. ? (Forward Resume)	1	N	X
Location (city)	10	AN	X
Physical Req.	1	N	X
Active/Inactive	1	N	
Benefits	15 x 1	N	X
Hosp			
Vac			
Pens			
Stock Options			
Etc.			

APPENDIX L

Data Items for Occupational Information

D.O.T. Code Number

Level of Education Required

Related College Majors

50-word Definition of Job

Worker Trait Group Applicable

Range of Typical Salaries

Work Characteristics of Job

Data Items for Educational Opportunities Information

School Code Number

School Name

Sex Requirement Code

Location Code

Community Size Code

Size of School

Admission Tests

Admission Courses

Admission Category

Cost of Room and Board

Cost of Tuition

Total Cost, living on Campus

Total Cost if Commuter

Majors Offered

APPENDIX M

SPECIAL PURPOSES FILE

PROJECT TITLE:

PERSONS SERVED:

AREA SERVED:

SPONSORING AGENCY:

PURPOSE:

DESCRIPTION OF PROGRAM:

ELIGIBILITY REQUIREMENTS:

FUNDING:

PERSONNEL:

EVALUATION:

WHAT LITERATURE AVAILABLE:

APPENDIX N

Jeffco Placement
CCEM

DIRECTIONS FOR THE USE OF THE MANUAL RETRIEVAL SYSTEM

FORM: McBee Keysort - Single Level Punch - 6 1/2" x 7 1/2"

EQUIPMENT: Hand Punch - Keysorting Needle - Alighment Block - Keysort Card Storage Cabinets - Card Savers

SOURCE OF DATA: Placement Office Application

SYSTEM OPERATOR: Para-Professional - School Placement Counselor - Assistant Placement Coordinator

COST: Initial Set Up: Approximately $400.00 for a school of 2000 students

Additional: Cards as needed $60.00 per 500 printed

COLLECTION OF DATA:

1. Each applicant will be responsible for filling out designated blanks on Placement Office Application (Attachment 3)
2. The para-professional will, through interview, collect the additional data necessary to complete Placement Office Application.

ENTRY OF DATA: Once the Placement Office Application is complete this information will be entered on the McBee Card (Attachment 2) by punching in or printing in all information in the following manner:

1. Print in all information requested in top half of center of card.
2. Starting in Upper Left Hand Corner of card, punch if applicant is Male - DO NOT PUNCH IF FEMALE.
3. Next punch if applicant is a Student (STU), a Graduate (GRD), or Dropout (DO).
4. Punch Interest Area as determined by current expressed career goal (if any). These areas are D.O.T. classified.

5. The next twenty (20) spaces are to be used for applicant identification. If Alphabetic sequence is to be determined by Student Number Coding, use the Top Row of Numbers - 7 4 2 1. In this section use the First Four 7 4 2 1 Blocks counting from RIGHT to LEFT. Punch the first four numbers of the student identification number as shown in the example below:

First Four
Numbers
EXAMPLE: Student Number (8 3 5 4)1 6

8				3				5				4			
ʊ	o	o	ʊ	o	o	ʊ	ʊ	o	ʊ	o	ʊ	o	ʊ	o	o
7	4	2	1	7	4	2	1	7	4	2	1	7	4	2	1

If Alphabetic sequence is to be determined by Letter Coding, use the bottom Row of Letters and numbers - NZ 7 4 2 1. In this section use ALL four NZ 7 4 2 1 blocks. Punch the first three letters of the Applicants Last Name and the First Letter of the First Name as shown in the example below:

EXAMPLE: Student Name -(F O S)T E R, (J)A N E T

The first thirteen letters of the alphabet are numbered from 1 to 13, eg. A=1, F=6, M=13. The last thirteen letters of the alphabet are numbered from NZ 1 to NZ 13, eg. N=NZ1, R=NZ5, Z=NZ13. Full key is shown below.

F=6					O=NZ2					S=NZ6					J=10				
o	o	ʊ	ʊ	o	ʊ	o	o	ʊ	o	ʊ	o	ʊ	ʊ	o	o	ʊ	o	ʊ	ʊ
NZ	7	4	2	1	NZ	7	4	2	1	NZ	7	4	2	1	NZ	7	4	2	1

KEY

A = 1
B = 2
C = 3
D = 4
E = 5
F = 6
G = 7
H = 8
I = 9
J = 10
K = 11
L = 12
M = 13

N = NZ1
O = NZ2
P = NZ3
Q = NZ4
R = NZ5
S = NZ6
T = NZ7
U = NZ8
V = NZ9
W = NZ10
X = NZ11
Y = NZ12
Z = NZ13

6. Moving to the right hand edge of the card, punch Summer Work (S), Part Time Work (P), Full Time Work (F). As a student goes through school these punches could change. For example a student could, as a junior want only part time work but as a senior may want to be considered for full time work upon

graduation. A new punch could be made. The previous punch could be left as is or covered over with a "Card Saver."

7. Proceeding down the right edge of the card, punch out all vocational courses the Applicant has completed. This is one area where updating on a regular basis would be necessary.

8. The lower portion of the right edge of the card would be punched for Race, e.g. Black (B), Chicano (C), Oriental (O), Indian (I), Other (OT).

9. Along the bottom of the card on the right hand side any Cooperative Education Programs in process or completed would be punched.

10. Continuing along the bottom of the card from Right to Left Business Courses completed should be punched.

    NOTE: Typing and Shorthand would be punched by level of skill. This is an area needing continual updating.

11. The next punch will take into account the physical size of applicant. This determination will be a judgemental determination made on the part of the Para-Professional. Suggeste Guide Lines:

MALE:

Small: Height 5'4" or less, Weight 110 lbs. or less.

Medium: Height 5'5" to 5'10", Weight 115 to 170 lbs.

Large: Height 5'11" or more, Weight 175 lbs. or more.

FEMALE:

Small: Height 5'0" or less, Weight 90 lbs. or less.

Medium: Height 5'1" to 5'7", Weight 95 lbs, to 135 lbs.

Large: Height 5'8" or more, Weight 140 or more.

12. Attendence Record in Junior High School and Senior High School would be punched if records were available. Suggested guide lines:

Excellent: 5 day or less per year

Average: 6 days to 12 days per year

Poor: 13 days or more per year

13. In the Lower Left Hand Corner of the card a punch would be made if the applicant had a Driver's License (DRV LIC). Another punch would be made if the applicant had transportation to and from work on a reliable basis (TRN).

14. The lower section on the left hand edge of the card is punched if information obtained would indicate Mentally Retarded (MR), Emotionally Handicapped (EM), Educationally Handicapped (EH), Economically Handicapped (EC), Physically Handicapped (PH).

15. Determination of the type of curriculum the applicant has pursued should be punched:

College Prep	(CP)
Business	(B)
Vocational	(V)
General	(G)
Other	(OT)

16. The last section on the left edge of the card will be punched for the types of part time and summer time jobs the applicant would be interested in performing. Several punches could be used in this section.

APPENDIX O

ATTACHMENT 2₁

BEST COPY AVAILABLE

M	STU GRD	DO	0 PROF TECH MAGT	1 PROF TECH MGT	2 CLER SALES	3 SERV	4 FARM FISH FORS	5 [illegible]	6 MACH TRADE	7 BENCH WORK	8 STRU WORK	9 MISC

INTEREST CATEGORIES

Jeffco Placement
CCEM

NAME (Last) (First) (MI)

ADDRESS (NR) (STREET) (CITY) (ZIP)

SOCIAL SECU

CONTACT DATE REFERRED TO

CURRICULUM: OT, E, V, B, CP

HANDICAPPED: FH, EC, EA, EM, MR

TRN, DRV LIC

SIZE: S M L

Jeffco
CCEM

BEST COPY AVAILABLE

S
P
F

MONTH DAY YEAR
BIRTH DATE

AGE

WOOD REG.
WOOD ADV.
METAL REG.
METAL ADV.
WELDING
DRAFT REG.
CRAFT ADV.
ARCH DESIGN
BASIC ELEC.
ELECTRONICS
AUTO REG.
VOC. AUTO

VOCATIONAL

TELEPHONE

SCHOOL

S M D

NUMBER

MARITAL STATUS

COUNSELOR

DISPOSITION

COURSES

RACE

B
C
O
I

BUSINESS

PROGRAMS

TYPING

240

248

APPENDIX P

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